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=> b hcaplus
FILE 'HCAPLUS' ENTERED AT 16:32:11 ON 25 OCT 2004
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 25 Oct 2004  VOL 141 ISS 18
FILE LAST UPDATED: 24 Oct 2004  (20041024/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que l113
L59      122839 SEA FILE=HCAPLUS ABB=ON  PLU=ON  COLLAGENS+OLD,NT/CT OR
                ?COLLAGEN?/BI
L64        1420 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SPONGE?/BI AND L59
L112        353 SEA FILE=HCAPLUS ABB=ON  PLU=ON  NYCOMED/PA
L113          3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L112 AND L64


=> d all l113 1-3

L113 ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2002:696041  HCAPLUS
DN   137:222121
ED   Entered STN:  13 Sep 2002
TI   A method of preparing a collagen sponge and a device
     for extracting a part of a collagen foam
IN   Schaufler, Alfred
PA   Nycomed Pharma AS, Norway
SO   PCT Int. Appl., 27 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  C08J009-00
CC   63-7 (Pharmaceuticals)
     Section cross-reference(s): 38
FAN.CNT 3
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   WO 2002070594        A2    20020912    WO 2002-IB1452         20020125
     WO 2002070594        A3    20030103
     WO 2002070594        C1    20040311
         W:  AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
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KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW,
AM, AZ, BY, KG
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US	2002153632	A1	20021024	US 2002-54854	20020125
US	2002164322	A1	20021107	US 2002-54889	20020125
US	2002187194	A1	20021212	US 2002-54853	20020125
US	6733774	B2	20040511		
EE	200300349	A	20031015	EE 2003-349	20020125
EP	1368419	A2	20031210	EP 2002-718481	20020125
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BR	2002006705	A	20040225	BR 2002-6705	20020125
NO	2003003295	A	20030925	NO 2003-3295	20030722
PRAI DK	2001-135	A	20010125		
DK	2001-235	A	20010213		
US	2001-263699P	P	20010125		
US	2001-270914P	P	20010226		
WO	2002-IB1452	W	20020125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002070594	ICM	C08J009-00
US 2002187194	ECLA	A61L015/32A; A61L015/42E; A61L024/00H8; A61L024/10A; A61L024/10F

AB A method of preparing a **collagen sponge** comprises mixing air into a **collagen** gel, so as to obtain a **collagen** foam which is dried. From the dried product thereby obtained, **collagen sponge** is obtained by isolating parts of **sponge** with a chamber diameter of more than 0.75 mm and <4 mm, or parts with an average chamber diagonal dimension of 3 mm. The **collagen sponge** may be used as a material for sealing wounds, possibly with a coating comprising a fibrin glue, such as a combination of fibrinogen, thrombin and aprotinin. A device for extracting a part of a **collagen** foam and for degenerating another part of the **collagen** foam to a **collagen** gel is disclosed. An elongated **collagen sponge** having a through-going hole or bore and a flexible wall may be used for re-establishing walls in a mammalian gastrointestinal funnel or trachea system.

ST **collagen sponge** device extn; foam **collagen sponge** device extn

IT Medical goods
(adhesives; preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Fibrins
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(glue; preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Adhesives
(medical; preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Solvents

(organic; preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Coating materials
Digestive tract
Elasticity
Tendon
Trachea (anatomical)
Viscosity
Wound healing
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT **Collagens, biological studies**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Alcohols, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT Medical goods
(**sponges**; preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT 50-21-5, Lactic acid, processes 64-17-5, Ethanol, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

IT 9002-04-4, Thrombin 9087-70-1, Aprotinin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of **collagen sponge** and device for extraction of **collagen** foam)

L113 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:574967 HCAPLUS
DN 137:129824
ED Entered STN: 02 Aug 2002
TI **Collagen sponges** coated with fibrinogen, thrombin and alcohol comprising suspension and method for preparation
IN Schaufler, Alfred
PA **Nycomed** Pharma AS, Norway
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61L027-00
CC 63-3 (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058750	A2	20020801	WO 2002-IB1454	20020125
	WO 2002058750	A3	20021031		
	WO 2002058750	C1	20040311		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	US 2002164322	A1	20021107	US 2002-54889	20020125
	US 2002187194	A1	20021212	US 2002-54853	20020125
	US 6733774	B2	20040511		
	EE 200300341	A	20031015	EE 2003-341	20020125
	EP 1359947	A2	20031112	EP 2002-734886	20020125
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004520124	T2	20040708	JP 2002-559084	20020125
	NO 2003003297	A	20030925	NO 2003-3297	20030722
PRAI	DK 2001-135	A	20010125		
	DK 2001-235	A	20010213		
	US 2001-263699P	P	20010125		
	US 2001-270914P	P	20010226		
	WO 2002-IB1454	W	20020125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002058750	ICM	A61L027-00
US 2002187194	ECLA	A61L015/32A; A61L015/42E; A61L024/00H8; A61L024/10A; A61L024/10F

AB A suspension of fibrinogen, thrombin, alc. and optionally aprotinin is obtained by mixing fibrinogen in alc. with thrombin in alc. The suspension contains fibrinogen and thrombin particles with a Folk Ward mean diameter of 25-100 μm. The thrombin may be human, bovine or recombinant. The fibrinogen may be human or recombinant. A method for coating a carrier, such as a **collagen sponge**, with the suspension, and a method for drying the coating is disclosed. The coated **collagen** carrier may be used as a ready-to-use absorbable composition for tissue gluing, tissue sealing and hemostasis wherein the carrier is coated with solidly fixed components of fibrin glue, i.e. fibrinogen and thrombin.

ST **collagen sponge** fibrinogen thrombin coating tissue adhesive hemostasis

IT Adhesives
(biol. tissue; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Blood coagulation
Density
Drying
Elasticity
Foams

Human
Particle size
Pore size
Spraying
Suspensions
Temperature
Viscosity
Wound healing
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Albumins, biological studies
Collagens, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human, bovine, recombinant; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Medical goods
(**sponges; collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Medical goods
(tissue adhesives; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT 64-17-5, Ethanol, biological studies 9087-70-1, Aprotinin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT 9002-04-4, Thrombin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human, bovine, recombinant; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

L113 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:574966 HCAPLUS
DN 137:129823
ED Entered STN: 02 Aug 2002
TI Carrier with solid fibrinogen and solid thrombin
IN Stimmeder, Dagmar
PA **Nycomed** Pharma AS, Norway
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61L024-00

CC 63-3 (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058749	A2	20020801	WO 2002-IB1453	20020125
	WO 2002058749	A3	20021010		
	WO 2002058749	C1	20040311		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2002153632	A1	20021024	US 2002-54854	20020125
	US 2002164322	A1	20021107	US 2002-54889	20020125
	US 2002187194	A1	20021212	US 2002-54853	20020125
	US 6733774	B2	20040511		
	EP 1343542	A2	20030917	EP 2002-724554	20020125
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
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	BR 2002006708	A	20040225	BR 2002-6708	20020125
	JP 2004521115	T2	20040715	JP 2002-559083	20020125
	NO 2003003296	A	20030925	NO 2003-3296	20030722
PRAI	DK 2001-135	A	20010125		
	DK 2001-235	A	20010213		
	US 2001-263699P	P	20010125		
	US 2001-270914P	P	20010226		
	WO 2002-IB1453	W	20020125		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002058749	ICM	A61L024-00
US 2002187194	ECLA	A61L015/32A; A61L015/42E; A61L024/00H8; A61L024/10A; A61L024/10F
JP 2004521115	FTERM	4C076/AA32; 4C076/AA33; 4C076/AA82; 4C076/BB04; 4C076/BB05; 4C076/BB06; 4C076/BB07; 4C076/BB25; 4C076/BB26; 4C076/BB27; 4C076/BB29; 4C076/CC14; 4C076/EE24; 4C076/EE31; 4C076/EE37; 4C076/EE42; 4C076/EE43; 4C076/EE48; 4C076/FF21; 4C076/FF32; 4C081/BA11; 4C081/BA16; 4C081/BB06; 4C081/BB07; 4C081/BC02; 4C081/CA17; 4C081/CB05; 4C081/CD02; 4C081/CD08; 4C081/CD12; 4C081/CD15; 4C081/CD23; 4C081/CE03; 4C084/AA01; 4C084/AA03; 4C084/DC10; 4C084/DC12; 4C084/MA02; 4C084/MA05; 4C084/MA56; 4C084/MA57; 4C084/MA58; 4C084/MA59; 4C084/MA60; 4C084/NA11; 4C084/ZA531

AB The present invention relates to a solid composition useful for tissue gluing, tissue sealing and hemostasis consisting essentially of (a) a carrier which has at least one of the following phys. properties: elasticity module in the range of 5-100 N/cm, d. of 1-10 mg/cm3, chamber diameter of more than 0.75 mm and less than 4 mm and/or having a chamber diameter average below 3 mm and evenly distributed and fixed upon said carrier, (b) solid fibrinogen, and (c) solid thrombin. The carrier is a biodegradable

polymer such as a polyhyaluronic acid, polyhydroxy acid, e.g. lactic acid, glycolic acid, hydroxybutanoic acid, a cellulose, gelatine or **collagen**, such as a **collagen sponge**, e.g. a **collagen sponge** consisting essentially of **collagen** type I fibers. The fibrinogen and thrombin are preferably human, purified form a natural source, or transgenic or recombinant human fibrinogen and/or thrombin. In a preferred embodiment the composition does not comprise any antifibrinolytic agent such as aprotinin, ε-aminocaproic acid or α2-antiplasmin.

ST **collagen** carrier fibrinogen thrombin tissue adhesive hemostasis surgery

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biodegradable; carrier with solid fibrinogen and solid thrombin)

IT Adhesives
(biol. tissue; carrier with solid fibrinogen and solid thrombin)

IT Blood coagulation
Density
Elasticity
Human
Pore size
Surgery
Wound healing
(carrier with solid fibrinogen and solid thrombin)

IT **Gelatins, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier with solid fibrinogen and solid thrombin)

IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human or recombinant; carrier with solid fibrinogen and solid thrombin)

IT Surgery
(neurol.; carrier with solid fibrinogen and solid thrombin)

IT Surgery
(orthopedic; carrier with solid fibrinogen and solid thrombin)

IT Medical goods
(**sponges**; carrier with solid fibrinogen and solid thrombin)

IT Adrenal gland
Digestive tract
Ear
Kidney
Liver
Lung
Lymph node
Nervous system
Nose
Pancreas
Pharynx
Spleen
Thyroid gland
Tooth
(surgery; carrier with solid fibrinogen and solid thrombin)

IT Medical goods
(tissue adhesives; carrier with solid fibrinogen and solid thrombin)

IT **Collagens, biological studies**
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(type I; carrier with solid fibrinogen and solid thrombin)

IT 60-32-2, ε-Aminocaproic acid 9004-34-6, Cellulose, biological studies 9004-61-9, Hyaluronic acid 9087-70-1, Aprotinin 26100-51-6, Lactic acid homopolymer 26124-68-5, Glycolic acid homopolymer 52352-27-9, Polyhydroxybutanoic acid 138757-15-0, α2-Antiplasmin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carrier with solid fibrinogen and solid thrombin)

IT 9002-04-4, Thrombin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human or recombinant; carrier with solid fibrinogen and solid thrombin)

=> b home
FILE 'HOME' ENTERED AT 16:32:32 ON 25 OCT 2004

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=> b hcaplus
FILE 'HCAPLUS' ENTERED AT 16:23:56 ON 25 OCT 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 25 Oct 2004  VOL 141 ISS 18
FILE LAST UPDATED: 24 Oct 2004  (20041024/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que l107
L59      122839 SEA FILE=HCAPLUS ABB=ON  PLU=ON  COLLAGENS+OLD,NT/CT OR
                ?COLLAGEN?/BI
L64        1420 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?SPONGE?/BI AND L59
L65          89 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ?FOAM?/BI AND L64
L68          89 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L65 AND ?FOAM?/BI
L105         24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DRY?/BI AND L68
L107         19 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L105 AND (PY<=2001 OR
                PRY<=2001 OR AY<=2001)


=> b medl
FILE 'MEDLINE' ENTERED AT 16:24:07 ON 25 OCT 2004

 FILE LAST UPDATED: 23 OCT 2004 (20041023/UP).  FILE COVERS 1951 TO DATE.

 On February 29, 2004, the 2004 MeSH terms were loaded.  See HELP RLOAD
 for details. OLDMEDLINE now back to 1951.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2004 vocabulary.  See http://www.nlm.nih.gov/mesh/ and
 http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a
 description of changes.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d que l108
L70      191183 SEA FILE=MEDLINE ABB=ON  PLU=ON  COLLAGEN+ALL/CT
L74       20167 SEA FILE=MEDLINE ABB=ON  PLU=ON  L70(L)CH
L75          71 SEA FILE=MEDLINE ABB=ON  PLU=ON  L74 AND ?SPONGE?/BI
L76          18 SEA FILE=MEDLINE ABB=ON  PLU=ON  (?MANUF? OR ?PREP?) AND L75
L78        1978 SEA FILE=MEDLINE ABB=ON  PLU=ON  PORIFERA/CT
L79          16 SEA FILE=MEDLINE ABB=ON  PLU=ON  L76 NOT L78
L108         11 SEA FILE=MEDLINE ABB=ON  PLU=ON  L79 AND PY<=2001
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=> b biosis
FILE 'BIOSIS' ENTERED AT 16:24:17 ON 25 OCT 2004
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FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 20 October 2004 (20041020/ED)

FILE RELOADED: 19 October 2003.

=> d que l109
L85          528 SEA FILE=BIOSIS ABB=ON  PLU=ON  COLLAGEN?(2A)SPONGE?
L90          357 SEA FILE=BIOSIS ABB=ON  PLU=ON  (?STRUCT? OR ?FOAM? OR
                 ?FORM?)/BI AND L85
L91          111 SEA FILE=BIOSIS ABB=ON  PLU=ON  METHOD?/CT AND L90
L92           15 SEA FILE=BIOSIS ABB=ON  PLU=ON  PREP?/BI AND L91
L109          10 SEA FILE=BIOSIS ABB=ON  PLU=ON  L92 AND PY<=2001


=> b wpix
FILE 'WPIX' ENTERED AT 16:24:28 ON 25 OCT 2004
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FILE LAST UPDATED:          19 OCT 2004      <20041019/UP>
MOST RECENT DERWENT UPDATE:     200467        <200467/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE
    http://thomsonderwent.com/coverage/latestupdates/           <<<

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    GUIDES, PLEASE VISIT:
    http://thomsonderwent.com/support/userguides/               <<<

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    DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX
    FIRST VIEW - FILE WPIFV.
    FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv  <<<

>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF
    HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT  <<<

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L97           67 SEA FILE=WPIX ABB=ON  PLU=ON  FOAM?/BIX AND L96
L99           38 SEA FILE=WPIX ABB=ON  PLU=ON  GEL?/BIX AND L97
L101          14 SEA FILE=WPIX ABB=ON  PLU=ON  (DRIED OR DRY?)/BIX AND L99


=> dup rem l108 l109 l107 l101
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Proteinaceous polymers

Proteins from animals or insects, Animal proteins and polypeptides, no sequence

FILE 'MEDLINE' ENTERED AT 16:25:02 ON 25 OCT 2004

FILE 'BIOSIS' ENTERED AT 16:25:02 ON 25 OCT 2004

FILE 'HCAPLUS' ENTERED AT 16:25:02 ON 25 OCT 2004

FILE 'WPIX' ENTERED AT 16:25:02 ON 25 OCT 2004

PROCESSING COMPLETED FOR L108
PROCESSING COMPLETED FOR L109
PROCESSING COMPLETED FOR L107
PROCESSING COMPLETED FOR L101
L110 50 DUP REM L108 L109 L107 L101 (4 DUPLICATES REMOVED)

=> d ibib abs hitind l110 1-50

L110 ANSWER 1 OF 50 HCAPLUS
ACCESSION NUMBER: 2003:523953 HCAPLUS
DOCUMENT NUMBER: 139:68261
TITLE: **Foamed sponges** prepared from hydrocolloids
INVENTOR(S): Nussinovitch, Amos
PATENT ASSIGNEE(S): Yissum Research Development Company of the Hebrew University of Jerusalem, Israel
SOURCE: U.S., 25 pp., Cont.-in-part of Appl. PCT/94EP/00107.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6589328	B1	20030708	US 1997-877804	19970618 <--
IL 104441	A1	20010128	IL 1993-104441	19930119 <--
WO 9417137	A1	19940804	WO 1994-EP107	19940117 <--
W: AU, CA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 2003224022	A1	20031204	US 2003-371205	20030224 <--

PRIORITY APPLN. INFO.:

IL 1993-104441	A	19930119 <--
WO 1994-EP107	B2	19940117 <--
US 1995-491983	B2	19950718 <--
US 1997-877804	A2	19970618 <--

AB **Sponges** (**foams**) are produced from hydrocolloids by gel expansion. The **foams** have properties which can be varied, including water absorption, biodegradibility, pore size and structure. Food products can be produced which may contain an edible plasticizer, a sugar or sugar substitute and possibly also a flavoring agent or taste enhancer. The novel **sponges** are produced by preparing a gel of a hydrocolloid, and either sealing it in a closed vessel with a liquid of similar composition, pressurizing the vessel and abruptly releasing the pressure, followed by freeze **drying**, or by incorporating in such a gel a suitable microorganism, such as a yeast and inducing fermentation in the presence of a suitable nutrient medium, so that the carbon dioxide formed results in the expansion and **foam** formation, which is processed

to the final product. The initial network of the gel is maintained in the **sponges/foams.** Thus, a 2% agar solution is mixed with a yeast (Saccharomyces cerevisiae) suspension (mixing ratio 9:1) to obtain gels with 108-109 cells/mL and the gels are immersed in a 5% sugar solution to induce fermentation and **sponge** formation.

IC ICM A23L001-04
ICS A23B004-04

NCL 106205100; 106122000; 106162810; 106206100; 426044000; 426060000; 426062000; 426077000; 426078000; 426084000

CC 17-4 (Food and Feed Chemistry)

ST food hydrocolloid **sponge foam**

IT Plasticizers
(edible; **foamed sponges** prepared from hydrocolloids)

IT **Drying**
Expansion
Fermentation
Flavor
Flavoring materials
Foams
Food **foaming**
Food gels
Food processing
Hydrocolloids
Microorganism
Nutrition, animal
Porosity
Pseudomonas stutzeri
Sponges (artificial)
Sweetening agents
(**foamed sponges** prepared from hydrocolloids)

IT Acids, biological studies
Alcohols, biological studies
Carbohydrates, biological studies
Fats and Glyceridic oils, biological studies
Soybean oil
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(**foamed sponges** prepared from hydrocolloids)

IT **Gelatins, biological studies**
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**foamed sponges** prepared from hydrocolloids)

IT Pressure
(high; **foamed sponges** prepared from hydrocolloids)

IT Alcohols, biological studies
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(polyhydric; **foamed sponges** prepared from hydrocolloids)

IT Human
(vitamin A supplementation in; **foamed sponges** prepared from hydrocolloids)

IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerol, biological studies 77-92-9, Citric acid, biological studies 90-80-2, Glucono-δ-lactone 124-38-9, Carbon dioxide, biological studies 471-34-1, Calcium carbonate, biological studies 7447-40-7, Potassium chloride, biological studies 7757-93-9, Calcium hydrogen orthophosphate 9005-38-3, Sodium alginate 11103-57-4, Vitamin A 11114-20-8, κ-Carrageenan
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(**foamed sponges** prepared from hydrocolloids)

IT 9000-07-1, Carrageenan 9000-40-2, Locust bean gum 9000-69-5, Pectin
9002-18-0, Agar 9005-32-7, Alginic acid 11138-66-2, Xanthan
37220-17-0, Konjak mannan 71010-52-1, Gellan gum
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process); USES (Uses)
(**foamed sponges** prepared from hydrocolloids)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 2 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:507706 HCAPLUS
DOCUMENT NUMBER: 139:70659
TITLE: Clarified hydrocolloids of undiminished properties especially konjac glucomannan, reduced viscosity konjac glucomannan, and their preparation
INVENTOR(S): Renn, Donald Walter; Blake, Nancy Amelia
PATENT ASSIGNEE(S): Marine Bioproducts International, Can.
SOURCE: U.S., 18 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6586590	B1	20030701	US 2000-609870	20000703 <--
US 2002019447	A1	20020214	US 2001-804402	20010313 <--
US 2003208064	A1	20031106	US 2003-465619	20030620 <--
PRIORITY APPLN. INFO.:			US 2000-609870	A2 20000703 <--

AB A process of producing a hydrocolloid which, when hydrated, forms a clear sol comprises (a) soaking a hydrocolloid containing material dispersed in H2O until the hydrocolloid is hydrated, (b) stirring the hydrated hydrocolloid until a homogeneous particulate containing sol is obtained, (c) removing insol. particulates to produce a clarified sol, (d) removing remaining particulates in the clarified sol by filtration, and (e) recovering the clarified hydrocolloid from the filtrate.
IC ICM C07H001-06
NCL 536128000; 536114000; 536124000; 516107000
CC 44-7 (Industrial Carbohydrates)
ST glucomannan polysaccharide hydrocolloid gel film **foam** capsule **sponge** manuf; locust bean gum hydrocolloid gel film **foam** capsule **sponge**; guar gum hydrocolloid gel film **foam** capsule **sponge**; aloe gum hydrocolloid gel film **foam** capsule **sponge**; acemannan gum hydrocolloid gel film **foam** capsule **sponge**
IT Capsules
Films
Foams
Hydrocolloids
Hydrogels
Sponges (artificial)
(**dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)
IT **Collagens, preparation**
Polysaccharides, preparation
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)

(**dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT Gums and Mucilages
(okra; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 37220-17-0P, Konjac glucomannan
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)
(Amophol LG and Amophol TS; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 9004-65-3P, Hydroxypropyl methyl cellulose
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)
(Benecel MP 824, co-precipitation with glucomannans; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 9000-30-0P, Guar gum
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)
(Procol F; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 9002-18-0P, Agar 9004-32-4P, Carboxymethyl cellulose 9004-62-0P, Natrosol 250L
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)
(co-precipitation with glucomannans; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 1303-96-4, Borax
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(co-precipitation with glucomannans; **dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

IT 9000-40-2P, Locust bean gum 11138-66-2P, Keltrol T 110042-95-0P, Acemannan
RL: PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); PREP (Preparation); PROC (Process)
(**dry** clarified hydrocolloids of undiminished properties maintaining impurities of large particle size for separation and forming clear sols)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 3 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:428854 HCAPLUS
DOCUMENT NUMBER: 139:169371
TITLE: Hemostatic **sponge** and method for its obtaining
INVENTOR(S): Dembo, M. A.; Selivanov, E. A.; Lambakakhar, E. Ya.; Shitikova, A. S.; Ivanenko, A. Yu.; Belov, E. V.
PATENT ASSIGNEE(S): Rossiiskii Nauchno-Issledovatel'skii Institut Gematologii i Transfuziologii, Russia
SOURCE: Russ., No pp. given
CODEN: RUXXE7
DOCUMENT TYPE: Patent

LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2198684	C2	20030220	RU 2001-110049	20010406 <--

PRIORITY APPLN. INFO.: RU 2001-110049 20010406 <--

AB Hemostatic **sponge** and method for its obtaining are disclosed. The suggested hemostatic **sponge** includes (per 1 g) about 0.0028 g furacillin, 0.0194-0.0358 g calcium chloride, 0.2187-0.3288 g gentamicin sulfate and gelatin - the rest. **Sponge** has porosity of 0.93-0.96 and sp. surface equal to 253000±15000 m2/m3. The method to obtain the suggested hemostatic **sponge** includes frothing of aqueous solution of components due to intensive mixing, froth solidification by freezing, freeze **drying** and sterilization of **sponge** by γ-irradiation Mixing aqueous solution recommended at energy value being 11.9-19.4 J/kG. Method enables to increase hemostatic and antimicrobial activity of hemostatic **sponge.**

IC ICM A61L015-32
CC 63-7 (Pharmaceuticals)
ST hemostatic **sponge** antimicrobial
IT Antimicrobial agents
Foaming
Freeze **drying**
Freezing
Hemostatics
Porosity
Sterilization and Disinfection
(hemostatic **sponge** and method for its obtaining)
IT **Gelatins, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic **sponge** and method for its obtaining)
IT Gamma ray
(irradiation; hemostatic **sponge** and method for its obtaining)
IT Medical goods
(**sponges**, hemostatic; hemostatic **sponge** and method for its obtaining)
IT 59-87-0 1405-41-0, Gentamicin sulfate 10043-52-4, Calcium chloride, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hemostatic **sponge** and method for its obtaining)

L110 ANSWER 4 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-491992 [46] WPIX
DOC. NO. NON-CPI: N2003-390804
DOC. NO. CPI: C2003-131518
TITLE: Preparation of an aqueous insoluble silver alginate **sponge** useful in e.g. wound dressing involves step of preparation of an aqueous solution of a water-soluble alginate composition and adding an aqueous-soluble silver salt.
DERWENT CLASS: A96 B05 D22 P34
INVENTOR(S): SCHERR, G H
PATENT ASSIGNEE(S): (SCHE-I) SCHERR G H
COUNTRY COUNT: 32
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

US 2003021832 A1 20030130 (200346)* 9
WO 2003009810 A2 20030206 (200346) EN
RW: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
W: CA CN IL IN JP MX RU SG US
US 6696077 B2 20040224 (200415)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003021832	A1	US 2001-912337	20010726
WO 2003009810	A2	WO 2002-US23561	20020722
US 6696077	B2	US 2001-912337	20010726

PRIORITY APPLN. INFO: US 2001-912337 20010726
AN 2003-491992 [46] WPIX
AB US2003021832 A UPAB: 20030719
NOVELTY - Preparation of an aqueous insoluble silver alginate **sponge** or **foam** product (P1) involves making an aqueous solution of a water soluble alginate composition (I) and adding an aqueous-soluble silver salt to form an aqueous insoluble silver alginate product.

DETAILED DESCRIPTION - Preparation of an aqueous insoluble silver alginate **sponge** or **foam** product involves:

(a) preparation of an aqueous solution of a water soluble alginate composition (I);

(b) mixing the total composition of (I) and adding an aqueous-soluble silver salt which complexes with an aliquot of the soluble alginate forming an aqueous insoluble silver alginate product (II);

(c) adding gaseous **foam**-forming or effervescent compound(s) and an acid into (II) to form a composite; and

(d) pouring the composite mixture onto a surface to evaporate water.

INDEPENDENT CLAIMS are also included for:

(1) preparation of an aqueous insoluble silver alginate-calcium alginate **sponge** or **foam** product (P2) involving preparing an aqueous solution of a water soluble alginate composition (I), mixing the total composition of (I) and adding an aqueous-soluble silver salt capable of complexing with an aliquot of the soluble alginate to form an aqueous insoluble silver alginate product, a surface-active agent, a gaseous **foam** forming or effervescent compound, sodium tetraborate, a plasticizer, ammonia and a di- or trivalent cation metal ion salt capable of complexing the unreacted water soluble alginate to form water insoluble alginate hydrogel, adding an acid to form a composite, and pouring the composite mixture onto a surface to evaporate water resulting in a sheet of a **foam** calcium alginate-silver alginate composition;

(2) a silver alginate cross-linked **foam** composition (C1); and

(3) a silver alginate-calcium alginate cross-linked **foam** composition (C2).

ACTIVITY - Vulnerary.

MECHANISM OF ACTION - None given.

USE - In the preparation of wound dressings or surgical products (claimed); also in the preparation of medical and veterinary dressings for the treatment of burns, wounds, ulcerated lesions and related pathological states.

ADVANTAGE - The silver alginate **foam** composition is highly flexible; has an increased elasticity and can be readily draped around

small circumstances (e.g. finger) without distortion or breakage of the alginate dressing. The silver alginate **foam** composition is highly viscous and results in a viscosity which may be difficult to layer in a homogenous thin layer on a plate to permit its **drying.** Also the addition of ammonia in aqueous solution or ammonium salts reduces the viscosity of the silver alginate **foam** composition and significantly improves the layering of the silver alginate **foam** composition.
Dwg.0/0

L110 ANSWER 5 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2002:574967 HCAPLUS
DOCUMENT NUMBER: 137:129824
TITLE: **Collagen sponges** coated with fibrinogen, thrombin and alcohol comprising suspension and method for preparation
INVENTOR(S): Schaufler, Alfred
PATENT ASSIGNEE(S): Nycomed Pharma AS, Norway
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058750	A2	20020801	WO 2002-IB1454	20020125 <--
WO 2002058750	A3	20021031		
WO 2002058750	C1	20040311		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002153632	A1	20021024	US 2002-54854	20020125 <--
US 2002164322	A1	20021107	US 2002-54889	20020125 <--
US 2002187194	A1	20021212	US 2002-54853	20020125 <--
US 6733774	B2	20040511		
EE 200300341	A	20031015	EE 2003-341	20020125 <--
EP 1359947	A2	20031112	EP 2002-734886	20020125 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004520124	T2	20040708	JP 2002-559084	20020125 <--
NO 2003003297	A	20030925	NO 2003-3297	20030722 <--

PRIORITY APPLN. INFO.:			
DK 2001-135	A	20010125	<--
DK 2001-235	A	20010213	<--
US 2001-263699P	P	20010125	<--
US 2001-270914P	P	20010226	<--
WO 2002-IB1454	W	20020125	

AB A suspension of fibrinogen, thrombin, alc. and optionally aprotinin is obtained by mixing fibrinogen in alc. with thrombin in alc. The suspension contains fibrinogen and thrombin particles with a Folk Ward mean diameter of 25-100 μm. The thrombin may be human, bovine or recombinant. The fibrinogen may be human or recombinant. A method for

coating a carrier, such as a **collagen sponge**, with the suspension, and a method for **drying** the coating is disclosed. The coated **collagen** carrier may be used as a ready-to-use absorbable composition for tissue gluing, tissue sealing and hemostasis wherein the carrier is coated with solidly fixed components of fibrin glue, i.e. fibrinogen and thrombin.

IC ICM A61L027-00
CC 63-3 (Pharmaceuticals)
ST **collagen sponge** fibrinogen thrombin coating tissue adhesive hemostasis
IT Adhesives
(biol. tissue; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT Blood coagulation
Density
Drying
Elasticity
Foams
Human
Particle size
Pore size
Spraying
Suspensions
Temperature
Viscosity
Wound healing
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT Albumins, biological studies
Collagens, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human, bovine, recombinant; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT Medical goods
(**sponges; collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT Medical goods
(tissue adhesives; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT 64-17-5, Ethanol, biological studies 9087-70-1, Aprotinin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)
IT 9002-04-4, Thrombin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process);

USES (Uses)
(human, bovine, recombinant; **collagen sponges** coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

L110 ANSWER 6 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:556100 HCAPLUS
DOCUMENT NUMBER: 137:104170
TITLE: Treatment of female sexual dysfunction with vasoactive agents, particularly vasoactive intestinal polypeptide and agonists thereof
INVENTOR(S): Wilson, Leland F.; Place, Virgil A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 498,522, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
US 2002099003	A1	20020725	US 2001-929818		20010813	<--
US 5877216	A	19990302	US 1997-959064		19971028	<--
PRIORITY APPLN. INFO.:			US 1997-959057	B2	19971028	<--
			US 1997-959064	A2	19971028	<--
			US 1998-181316	B3	19981027	<--
			US 2000-498522	B2	20000204	<--

AB Methods for treating female sexual dysfunction are provided. A pharmaceutical composition containing a vasoactive agent selected from vasoactive intestinal polypeptide (VIP) and VIP agonists is administered to the vagina and/or vulvar region of the individual undergoing treatment. The formulations are also useful for improving vaginal muscle tone and tissue health, enhancing vaginal lubrication, and minimizing excess **collagen** deposition. Pharmaceutical formulations and kits are also provided.
IC ICM A61K038-17
ICS A61K031-56
NCL 514002000
CC 2-6 (Mammalian Hormones)
Section cross-reference(s): 63
IT Drug delivery systems
(**foams**; treatment of female sexual dysfunction with pharmaceutical formulations containing a vasoactive agent, particularly VIP and agonists thereof)
IT Vagina
(itching and **dryness** alleviation; treatment of female sexual dysfunction with vasoactive agents, particularly vasoactive intestinal polypeptide and agonists thereof)
IT Drug delivery systems
(**sponges**; treatment of female sexual dysfunction with pharmaceutical formulations containing a vasoactive agent, particularly VIP and agonists thereof)

L110 ANSWER 7 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:231700 HCAPLUS
DOCUMENT NUMBER: 141:128887
TITLE: Method for producing absorption hemostatic

sponge for surgery
INVENTOR(S): Tang, Baohui
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1385143	A	20021218	CN 2001-133795	20011227 <--
CN 1119133	B	20030827		

PRIORITY APPLN. INFO.: CN 2001-133795 20011227 <--

AB The method comprises expanding animal leather scrap in 4-10% Ca(OH)2 solution for 70-90 d, washing with water (pH 6.5-8), expanding again in the acid bath (a HCl-H2SO4 solution [4-6:4- 6, its [H+] of (0.45 ± 1) M]), neutralizing the acid bath to pH 6.5, stirring for ≥4 d, washing, soaking in 5.5-6.5% HCl solution for ≥5 d, diluting the HCl solution with water to pH 5, soaking to form colloidal leather, neutralizing the diluted HCl solution pH to 6.5, stirring for ≥3 d, boiling in water at 60-85° to form 1-2% gelatin solution, filtering, vacuum concentrating, vacuum **foaming**, blowing with (-20)-(-28)° compressed air, and **drying** with IR ray at 120-150°.

IC ICM A61F013-15
ICS A61F013-00; C14B001-00
CC 63-7 (Pharmaceuticals)
ST hemostatic **sponge** leather scrap prodn
IT Medical goods
(dressings, hemostatic; method for producing absorption hemostatic **sponge** for surgery)
IT Leather
Surgery
(method for producing absorption hemostatic **sponge** for surgery)
IT **Gelatins, biological studies**
RL: PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(method for producing absorption hemostatic **sponge** for surgery)
IT Medical goods
(**sponges**; method for producing absorption hemostatic **sponge** for surgery)
IT 1305-62-0, Calcium hydroxide, uses 1310-73-2, Sodium hydroxide, uses 7647-01-0, Hydrochloric acid, uses 7664-93-9, Sulfuric acid, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(method for producing absorption hemostatic **sponge** for surgery)

L110 ANSWER 8 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-667346 [71] WPIX
DOC. NO. NON-CPI: N2002-528012
DOC. NO. CPI: C2002-187474
TITLE: Biocompatible, hemostatic, cross-linked **gelatin** useful for use in surgical procedures composition comprises a cross-linked **gelatin** and a wetting agent.
DERWENT CLASS: B04 D22 P31 P34
INVENTOR(S): GREFF, R J

PATENT ASSIGNEE(S): (SUBQ-N) SUB-Q INC; (GREF-I) GREFF R J
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002072128	A1	20020919	(200271)*	EN	40
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2003028140	A1	20030206	(200313)		
EP 1389125	A1	20040218	(200413)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
AU 2002251882	A1	20020924	(200433)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002072128	A1	WO 2002-US3381	20020214
US 2003028140	A1 Provisional	US 2001-275420P	20010312
		US 2002-68812	20020204
EP 1389125	A1	EP 2002-720915	20020214
		WO 2002-US3381	20020214
AU 2002251882	A1	AU 2002-251882	20020214

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1389125	A1 Based on	WO 2002072128
AU 2002251882	A1 Based on	WO 2002072128

PRIORITY APPLN. INFO: US 2002-68812 20020204; US 2001-275420P 20010312

AN 2002-667346 [71] WPIX

AB WO 200272128 A UPAB: 20040421

NOVELTY - A biocompatible, hemostatic, cross-linked **gelatin** composition comprises a cross-linked **gelatin** and a wetting agent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) decreasing the hydration time of the composition involving incorporating a biocompatible wetting agent with the cross-linked **gelatin** prior to the hydration of the cross-linked **gelatin** ; and

(2) a kit for preparing the composition comprising a syringe and a non-hydrated pledget. The non-hydrated pledget consists of the cross-linked **gelatin** and the wetting agent.

USE - For use in surgical procedures (claimed), as hemostatic **sponge** for packing wounds, absorbing blood and to stop bleeding.

ADVANTAGE - The wetting agent permits a uniform wetting of the **gelatin** in the presence of an aqueous solution. The incorporation of the wetting agents into a cross-linked **gelatin** composition improves their use as a hemostatic **sponge** by providing improved fluid absorption, **gelatin** expansion and wound compression and a

uniform lubrication when injected as a pledget from a syringe assembly with less chances of damage to the structural integrity of the pledget; and decreases the hydration time needed to prepare the **gelatin** for use.
Dwg.0/0

L110 ANSWER 9 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-723254 [78] WPIX
CROSS REFERENCE: 2002-627388 [67]; 2003-029825 [02]
DOC. NO. CPI: C2002-204743
TITLE: Preparation of **collagen sponge** for use in sealing wounds, involves mixing air into **collagen gel**, **drying** **collagen foam** to obtain **dry** block of **collagen sponge** having chambers, and isolating selected parts of the **sponge.**
DERWENT CLASS: A11 A96 D22
INVENTOR(S): SCHAUFLER, A
PATENT ASSIGNEE(S): (SCHA-I) SCHAUFLER A; (NYCO-N) NYCOMED PHARMA AS
COUNTRY COUNT: 101
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002070594	A2	20020912	(200278)*	EN	27
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
US 2002153632	A1	20021024	(200278)		
NO 2003003295	A	20030925	(200373)		
EP 1368419	A2	20031210	(200382)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
CZ 2003002198	A3	20031217	(200404)		
BR 2002006705	A	20040225	(200416)		
SK 2003001036	A3	20040302	(200419)		
HU 2003003893	A2	20040301	(200422)		
AU 2002249528	A1	20020919	(200433)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002070594	A2	WO 2002-IB1452	20020125
US 2002153632	A1 Provisional	US 2001-263699P	20010125
		US 2002-54854	20020125
NO 2003003295	A	WO 2002-IB1452	20020125
		NO 2003-3295	20030722
EP 1368419	A2	EP 2002-718481	20020125
		WO 2002-IB1452	20020125
CZ 2003002198	A3	WO 2002-IB1452	20020125
		CZ 2003-2198	20020125
BR 2002006705	A	BR 2002-6705	20020125
		WO 2002-IB1452	20020125
SK 2003001036	A3	WO 2002-IB1452	20020125

		SK 2003-1036	20020125
HU 2003003893	A2	WO 2002-IB1452	20020125
		HU 2003-3893	20020125
AU 2002249528	A1	AU 2002-249528	20020125

FILING DETAILS:

PATENT NO	KIND		PATENT NO
EP 1368419	A2	Based on	WO 2002070594
CZ 2003002198	A3	Based on	WO 2002070594
BR 2002006705	A	Based on	WO 2002070594
SK 2003001036	A3	Based on	WO 2002070594
HU 2003003893	A2	Based on	WO 2002070594
AU 2002249528	A1	Based on	WO 2002070594

PRIORITY APPLN. INFO: DK 2001-235 20010213; DK 2001-135 20010125

AN 2002-723254 [78] WPIX

CR 2002-627388 [67]; 2003-029825 [02]

AB WO 200270594 A UPAB: 20040525

NOVELTY - A **collagen sponge** is prepared by forming a **collagen gel**; mixing air into the **gel** to obtain a **collagen foam**; **drying** the **collagen foam** to obtain a **dry** block of **collagen sponge** having chambers; and isolating, from the block of **collagen sponge**, parts of **sponge** with a chamber diameter of greater than 0.75 mm and less than 4 mm, or part with an average chamber diagonal dimension of 3 mm.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a device used for extracting part of the **collagen foam** and for degenerating another part of the **collagen foam** to a **collagen gel**. The device comprises a fractionizing channel having an inlet for the **collagen foam**, an outlet for part of the **collagen foam**, and a bottom portion which is inclined downwards in the direction of the flow of **collagen foam**. At least one outlet for **collagen gel** is provided at the bottom portion of the fractionizing channel. The position of the **collagen gel** outlet is movable in a vertical direction at an end of the fractionizing channel.

USE - The invention is used for preparing a **collagen sponge** which can be used in surgery or as a material for sealing wounds or re-establishing walls in a mammalian gastrointestinal funnel or trachea system.

ADVANTAGE - The inventive method is able to provide a **collagen sponge** with improved physical characteristics, such as humidity, elasticity density and elasticity module.

DESCRIPTION OF DRAWING(S) - The figure is a flowchart for the preparation of **collagen sponge**.

Dwg.1/4

L110 ANSWER 10 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN

ACCESSION NUMBER: 2002-314931 [35] WPIX

CROSS REFERENCE: 2003-776039 [73]; 2004-106763 [11]

DOC. NO. CPI: C2002-091544

TITLE: Preparation of konjac glucomannan **gel** or **sponge**, for e.g. the food industry, comprises making a sol by dispersing the gum in water, removing insoluble particulates, recovering the gum, **drying**, grinding to powder and dissolving in

water.
DERWENT CLASS: B04 D16
INVENTOR(S): BLAKE, N A; RENN, D W
PATENT ASSIGNEE(S): (BLAK-I) BLAKE N A; (RENN-I) RENN D W; (MARI-N) MARINE BIOPRODUCTS INT
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2002019447	A1	20020214	(200235)*		31
WO 2002072687	A2	20020919	(200263)	EN	

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

AU 2002245960 A1 20020924 (200433)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2002019447	A1 CIP of	US 2000-609870	20000703
		US 2001-804402	20010313
WO 2002072687	A2	WO 2002-CA334	20020311
AU 2002245960	A1	AU 2002-245960	20020311

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002245960	A1 Based on	WO 2002072687

PRIORITY APPLN. INFO: US 2001-804402 20010313; US 2000-609870 20000703
AN 2002-314931 [35] WPIX
CR 2003-776039 [73]; 2004-106763 [11]
AB US2002019447 A UPAB: 20040525
NOVELTY - Production of a clarified konjac glucomannan (A) **gel** or **sponge**, clarified konjac glucomannan or clarified aloe mannan (B) film, **foam** or capsule by soaking dispersed (A) or (B) in water, stirring to obtain a homogenous particulate containing sol, removing insoluble particulates, recovering (A) or (B), **drying** and grinding to a powder, dissolving the powder in water and forming into a required form.

DETAILED DESCRIPTION - Production of a clarified konjac glucomannan (A) **gel** or **sponge**, or a clarified aloe mannan (B) film, **foam**, capsule, **gel** or **sponge** by:

(a) soaking dispersed (A) or (B) in water, stirring the hydrated (A) or (B) until a homogenous particulate containing sol is obtained, removing insoluble particulates, recovering clarified (A) or (B) from the filtrate, **drying** and grinding to a powder, and optionally dissolving the powder in water to form a sol; where

(b) preparation of (A) **gel** involves adding a suitable alkaline agent to a sol of the clarified (A) of step (a) to deacetylate the sol to form the **gel**;

(c) preparation of (A) flexible water soluble film involves adding

glycerol or other plasticizer to a sol of the clarified (A) or (B) of step (a), dissolving (A) or (B), glycerol or other plasticizer mixture, casting the mixture as a film, and **drying** the film;

(d) preparation of (A) flexible hot water soluble film involves adding xanthan and glycerol or other plasticizer to the clarified sol of (A) or (B) of step (a) to form a mixture, dissolving the mixture, casting the mixture as a film, cooling the film to a **gel** and **drying** the **gel** to form the film;

(e) preparation of (A) flexible water-insoluble film involves adding glycerol or other plasticizer and an alkaline agent to the clarified sol of (A) of step (a) to form a mixture, dissolving the mixture, casting the mixture as a sol, heating the sol to deacetylate the mixture to form a **gel** and **drying** the **gel** to form the film;

(f) preparation of (A) rigid water soluble film involves step (c) but omitting the glycerol or other plasticizer;

(g) preparation of (A) rigid hot water soluble film involves step (d) but omitting the glycerol or other plasticizer;

(h) preparation of (A) rigid water insoluble film involves step (e) but omitting the glycerol or other plasticizer;

(i) preparation of (A) in the form of the water-inhibiting film that forms an amorphous **gel** involves adding an appropriate amount of glycerol and borax to the clarified (A) or (B) of step (a), dissolving the mixture, casting the mixture as a film and **drying** the film;

(j) preparation of (A) stabilized **foam** involves adding a **foaming** agent and glycerol to the clarified sol of (A) step (a) to form a mixture, aerating the mixture to produce a **foam**, adding an alkaline agent to the **foam**, heating the **foam** to set the **foam** and **drying** the **foam**;

(k) preparation of (A) flexible rubbery type **foam** involves adding a **foaming** agent, clarified xanthan and glycerol or other plasticizer to the clarified sol of (A) or (B) in step (a) to form a mixture, heating the mixture to form a sol, aerating the mixture to produce a **foam**, cooling the **foam** to set the **foam**, and **drying** the **foam**;

(l) when a **sponge** cloth-like **foam** is required, following step (j), but before **drying** the **foam**, freezing and thawing the **foam**, squeezing the **foam**, rinsing the **foam**, soaking the **foam** in isopropyl alcohol and **drying** the **foam**;

(m) preparation of (A) flexible, **dry foam** which rehydrates to form an amorphous **gel** involves adding a detergent and glycerin or other plasticizer to the sol of (A) of step (a) to form a mixture, aerating the mixture to form a **foam**, adding a borate to the **foam**, aerating the **foam** further, cooling and then **drying** the **foam**;

(n) preparation of (A) firm water absorbent **sponge** involves adding an alkaline agent to a sol of the clarified (A) of step (a) to form a mixture, heating the mixture until a **gel** is formed, freezing the **gelled** mixture, thawing the **gelled** mixture, and **drying** the **gelled** mixture; and

(o) preparation of (A) flexible water absorbent **sponge** involves step (n) but before **drying** and after thawing the **sponge**, soaking the **sponge** in isopropyl alcohol containing a suitable plasticizer, squeezing and **drying** the **sponge**.

INDEPENDENT CLAIMS are also included for the following:

(1) production of a clarified hydrocolloid guar gum (C) or locust bean gum (D), **gel**, film, **foam** or capsule;

(2) borating a cis-1,2-diol containing hydrocolloid;

(3) preparation of a capsule of clarified hydrocolloid;

(4) production of a reduced viscosity clarified sol of (A);
(5) production of a hydrocolloid composite containing at least two hydrocolloids which when hydrated, forms a clear hydrocolloid composite sol;
(6) a clarified hydrocolloid composite that forms a clear sol when mixed with water that is a clarified konjac and clarified (C), clarified konjac and clarified xanthan gum, clarified xanthan gum and clarified (C), clarified (B) and clarified (C), clarified konjac and clarified agar, clarified (B) and clarified konjac, clarified konjac and clarified (D), clarified konjac and clarified carboxymethyl cellulose, or clarified (C) and clarified carboxymethyl cellulose;
(7) preparation of a capsule of clarified composite hydrocolloid (preferably clarified guar, agar **gel** composite of (C) and xanthan **gel**; agar and (A); (A) and xanthan **gel**; hydrogen peroxide induced low-viscosity (A) and xanthan **gel**; or (C) and xanthan **gel**).
USE - The method is used for the production of clarified polysaccharide sols, particularly sols of konjac glucomannan, aloe mannan, guar gum, locust bean gum for the production of **gels**, **sponge**, films, **foams**, capsules clarified composite hydrocolloids (claimed), in food, pharmaceutical and cosmetic industries.
ADVANTAGE - The method is simple, cost-effective and results in **dry** hydrocolloid products that, when reconstituted, form clear viscous sols, free of all particulates and retain desirable physical properties, unlike the commercially available products.
Dwg.0/6

L110 ANSWER 11 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-699808 [76] WPIX
DOC. NO. CPI: C2002-198412
TITLE: Orally administered **sponge** material, useful for filling stomach to reduce appetite and/or for releasing active agents, comprises crosslinked anionic and cationic polymers and vegetable fiber.
DERWENT CLASS: A11 A25 A96 B07 D13
INVENTOR(S): MUELLER, B W; RATJEN, W
PATENT ASSIGNEE(S): (RATJ-I) RATJEN W; (WILL-I) WILLMEN H R
COUNTRY COUNT: 26
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 1214934	A2	20020619	(200276)*	GE	10
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
DE 10062624	A1	20020620	(200276)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1214934	A2	EP 2001-127683	20011121
DE 10062624	A1	DE 2000-10062624	20001215

PRIORITY APPLN. INFO: DE 2000-10062624 20001215
AN 2002-699808 [76] WPIX
AB EP 1214934 A UPAB: 20021125
NOVELTY - New **sponge** material for oral administration (I) comprises anionic polymer(s) (A), cationic polymer(s) (B) and vegetable

fiber (C), where (A) and (B) are individually or jointly crosslinked.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the preparation of (I), by:

(a) preparing an aqueous mixture (i) containing (A), a chemical crosslinking agent and (C) at 40-70 deg. C with constant stirring;

(b) preparing an aqueous mixture (ii) containing (B) and a crosslinking agent with constant stirring;

(c) combining mixtures (i) and (ii);

(d) obtaining a **foam**; and

(e) filling the **foam** in a container and **drying** at 25-80 (preferably 40-60) deg. C.

ACTIVITY - Anorectic.

MECHANISM OF ACTION - Physically filling the stomach with non-calorific material.

USE - The use of (I) is claimed for:

(1) suppressing appetite, reducing weight or treating obesity in humans; and/or

(2) releasing drugs, vitamins or minerals (specifically in prolonged, delayed or controlled manner) in the stomach.

Drugs contained in (I) are specifically appetite suppressants or drugs resorbable from the stomach (both claimed).

ADVANTAGE - (I) is swell able in aqueous media, has a long residence time in the stomach, is only slowly degraded in the human digestive tract and has a low calorific value. When administered orally, (I) swells to fill the stomach, providing a non-addictive, side-effect free method of reducing appetite and body weight. (I) is easy and inexpensive to produce, is non-toxic and non-irritating to the stomach (due to its elasticity) and gives good patient compliance. The solubility, enzymatic degradation kinetics, swell ability, elasticity and water uptake are readily controllable by varying the degree of crosslinking and the (C) content.

Dwg.0/0

L110 ANSWER 12 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:661291 HCAPLUS

DOCUMENT NUMBER: 135:200507

TITLE: **Collagen**-silicone composite **foam** for the treatment of wounds

INVENTOR(S): Siegel, Rolf; Ruszczak, Zbigniew; Mehrl, Robert; Jeckle, Johann; Stoltz, Michael

PATENT ASSIGNEE(S): Syntacoll A.-G., Switz.

SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064258	A1	20010907	WO 2000-EP1905	20000303 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1259269	A1	20021127	EP 2000-909315	20000303 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003525083 T2 . 20030826 JP 2001-563155 20000303 <--
US 2003078532 A1 20030424 US 2002-231667 20020830 <--
PRIORITY APPLN. INFO.: WO 2000-EP1905 W 20000303 <--

AB An agent for the treatment of wounds is obtained by evenly applying a (preferably aqueous) dispersion of a natural polymer (preferably **collagen**), which may also contain other substances promoting or/and accelerating healing, and/or other biol. active substances, and/or drugs, to the wound directed surface of an open- and/or mixed-pore **foam** of a synthetic polymer, and then removing the dispersant. By varying the conditions of removing the dispersant either films (membranes) adhering to the synthetic polymer **foam** or **sponges** of a natural polymer are obtained. This novel wound healing agent may be used for treatment of acute or chronic, partially or full-thickness wounds of different origin, including burns. A membrane of a natural polymer adhering to a bioinert **foam** (prepared from a polymer such as silicone), the water serving as the dispersant of the natural polymer dispersion, is removed by **drying** the latter at room temperature and under permanent and controlled air stream. The dispersant sublimes giving a **collagen**/silicone composite.

IC ICM A61L015-22
ICS A61L015-32; A61L015-42

CC 63-6 (Pharmaceuticals)

ST **collagen** silicone composite **foam** wound; wound healing **collagen** polymer composite

IT Animal cell
Antibiotics
Electron beams
Gamma ray sterilization
Porosity
Strength
Wound healing
Wound healing promoters
(**collagen**-silicone composite **foam** for treatment of wounds)

IT **Collagens, biological studies**
Polysiloxanes, biological studies
Polyurethanes, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen**-silicone composite **foam** for treatment of wounds)

IT Cytokines
Growth factors, animal
Hormones, animal, biological studies
Polymers, biological studies
Proteins, general, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**collagen**-silicone composite **foam** for treatment of wounds)

IT Medical goods
(**sponges**; **collagen**-silicone composite **foam** for treatment of wounds)

IT 75-21-8, Ethylene oxide, biological studies 9002-89-5, Poly(vinyl alcohol) 9004-61-9, Hyaluronic acid
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**collagen**-silicone composite **foam** for treatment of wounds)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:463232 HCAPLUS
DOCUMENT NUMBER: 135:62873
TITLE: Cellulose carbamate **sponge** and its manufacture
INVENTOR(S): Tsukida, Noriaki; Saito, Hidenao
PATENT ASSIGNEE(S): Rengo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001172302	A2	20010626	JP 1999-357770	19991216 <--
PRIORITY APPLN. INFO.:			JP 1999-357770	19991216 <--

AB The **sponge** is manufactured by adding void-forming agents to a solution of cellulose carbamate (I) then coagulating (or regenerating), where the pore-forming agents can be Na2SO4, hydrated gel particles, inorg. carbonate salts or surfactants. Thus, preparing a dissoln. of I (d.p. 400; substitution degree 0.16) 14 in water 139.5 and 36% NaOH solution 46.5 g, mixing with Na sulfate 25 parts/part-I, coating the resulting mixture on a glass surface, coagulating in a 2N H2SO4 solution for 1 h, washing and **drying** gave a **sponge** sheet.
IC ICM C08B015-06
CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
ST synthetic **sponge** cellulose carbamate pore forming agent; sodium sulfate pore forming agent cellulose carbamate **sponge**; hydrated gel pore forming agent cellulose carbamate **sponge**; carbonate pore forming agent cellulose carbamate **sponge**
IT **Foaming** agents
Sponges (artificial)
Surfactants
(cellulose carbamate **sponge** and manufacture)
IT **Gelatins, uses**
RL: NUU (Other use, unclassified); USES (Uses)
(**foaming** agent; cellulose carbamate **sponge** and manufacture)
IT 9004-34-6P, Cellulose, uses 54173-91-0P, Cellulose carbamate
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(cellulose carbamate **sponge** and manufacture)
IT 471-34-1, Calcium carbonate, uses 1119-94-4, Dodecyltrimethylammonium bromide 7757-82-6, Sodium sulfate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(**foaming** agent; cellulose carbamate **sponge** and manufacture)

L110 ANSWER 14 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-112499 [12] WPIX
CROSS REFERENCE: 2001-091751 [10]
DOC. NO. CPI: C2001-033517
TITLE: Method for controlling the flux of penetrants across an adaptable semi-permeable barrier is useful for

administering an agent to a mammalian body or a plant and for generating an immune response by vaccinating the mammal.

DERWENT CLASS: A18 A28 A96 B05 B07 D16 D22

INVENTOR(S): CEVC, G; RICHARDSEN, H; WEILAND-WAIBEL, A; WEILAND-WEIBEL, A

PATENT ASSIGNEE(S): (IDEA-N) IDEA AG; (CEVC-I) CEVC G; (RICH-I) RICHARDSEN H; (WEIL-I) WEILAND-WAIBEL A

COUNTRY COUNT: 95

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001001963	A1	20010111	(200112)*	EN	110
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000061557	A	20010122	(200125)		
BR 2000012178	A	20020312	(200226)		
EP 1189598	A1	20020327	(200229)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CZ 2002000038	A3	20020515	(200241)		
CN 1359288	A	20020717	(200268)		
HU 2002001454	A2	20021228	(200308)		
JP 2003503442	W	20030128	(200309)		109
US 2003099694	A1	20030529	(200337)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001001963	A1	WO 2000-EP6367	20000705
AU 2000061557	A	AU 2000-61557	20000705
BR 2000012178	A	BR 2000-12178	20000705
		WO 2000-EP6367	20000705
EP 1189598	A1	EP 2000-947939	20000705
		WO 2000-EP6367	20000705
CZ 2002000038	A3	WO 2000-EP6367	20000705
		CZ 2002-38	20000705
CN 1359288	A	CN 2000-809916	20000705
HU 2002001454	A2	WO 2000-EP6367	20000705
		HU 2002-1454	20000705
JP 2003503442	W	WO 2000-EP6367	20000705
		JP 2001-507458	20000705
US 2003099694	A1 Cont of	WO 2000-EP6367	20000705
		US 2002-37480	20020104

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000061557	A Based on	WO 2001001963
BR 2000012178	A Based on	WO 2001001963
EP 1189598	A1 Based on	WO 2001001963
CZ 2002000038	A3 Based on	WO 2001001963
HU 2002001454	A2 Based on	WO 2001001963

JP 2003503442 W Based on WO 2001001963

PRIORITY APPLN. INFO: WO 1999-EP4659 19990705
AN 2001-112499 [12] WPIX
CR 2001-091751 [10]
AB WO 200101963 A UPAB: 20030612
NOVELTY - A method for controlling the flux of penetrants across an adaptable semi-permeable porous barrier is new.

DETAILED DESCRIPTION - A method for controlling the flux of penetrants across an adaptable semi-permeable membrane comprises suspending the penetrants in a polar liquid in the form of fluid droplets surrounds by a membrane-like coating comprising at least two kinds of amphiphilic substances with a tendency to aggregate, selecting a dose of the penetrants to control the flux of the penetrants across the barrier and applying the selected dose of the formulation onto the area of the barrier. The amphiphilic substances differ by a factor of at least 10 in solubility in the polar liquid and the homo-aggregates of the more soluble substance and hetero-aggregates have a preferred average diameter smaller than the diameter of the homo-aggregates of the less soluble substance. The more soluble substance tends to solubilize the droplet and comprises up to 99% of the solubilizing concentration or saturating concentration in the unstabilized droplet. The presence of the more soluble substance lowers the average elastic energy of the coating by at least 5 times preferably more than 10 times the average elastic energy of red blood cells or of phospholipid bilayers with fluid aliphatic chains. The penetrants are able to transport agents through the pores of the barrier or enable agent permeation through the pores after the penetrants have entered the pores.

INDEPENDENT CLAIMS are included for:
(i) a kit containing the formulation;
(ii) a patch containing the formulation; and
(iii) a method of administering an agent to a mammalian body or plant comprising the novel method.

USE - The method is useful for administering an agent to a mammalian body or a plant, for generating an immune response by vaccinating the mammal and for treating inflammatory disease, dermatosis, kidney or liver failure, adrenal insufficiency, aspiration syndrome, Behcet syndrome, bites and stings, blood disorders (cold-hemagglutinin disease), hemolytic anaemia, hypereosinophilic, hypoplastic anaemia, macroglobulinaemia and thrombocytopenic purpura), bone disorders, cerebral oedema, Cogan's syndrome, congenital adrenal hyperplasia, connective tissue disorders (lichen, lupus erythematosus, polymyalgia rheumatica, polymyositis and dermatomyositis), epilepsy, eye disorders (cataracts), Graves' ophthalmopathy, hemangioma, herpes infections, neuropathies, retinal vasculitis, scleritis, gastro-intestinal disorders (inflammatory bowel disease, nausea and oesophageal damage), hypercalcaemia, infections, Kawasaki disease, myasthenia gravis, pain syndromes, polyneuropathies, pancreatitis, respiratory disorders (asthma), rheumatoid disease, osteoarthritis, rhinitis, sarcoidosis, skin diseases, alopecia, eczema, erythema multiforme, lichen, pemphigus and pemphigoid, psoriasis, pyoderma gangrenosum, urticaria and thyroid and vascular disorders.

ADVANTAGE - Increasing the applied dose above a threshold level affects both the drug/penetrant distribution and also determines the rate of penetrant transport across the barrier.
Dwg.0/14

L110 ANSWER 15 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2002-231246 [29] WPIX
DOC. NO. CPI: C2002-070371
TITLE: Physiologically active peptide sustained release

collagen compact for regenerating portions of living tissue, contains physiologically active peptide in insoluble **collagen** material.

DERWENT CLASS: B07 D16
PATENT ASSIGNEE(S): (SHIM-I) SHIMIZU Y; (TAPI-N) TAPIKKU KK
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2001316282	A	20011113	(200229)*		9

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2001316282	A	JP 2000-138332	20000511

PRIORITY APPLN. INFO: JP 2000-138332 20000511
AN 2002-231246 [29] WPIX
AB JP2001316282 A UPAB: 20020508
NOVELTY - A physiologically active peptide sustained release **collagen** compact (PSRCC) contains physiologically active peptide in an insoluble **collagen** material.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for preparation of PSRCC which involves contacting a cross-linked **collagen** compact prepared from **atherocollagen** (sic) (pro-**collagen**) as raw material, or cross-linked **collagen gel**, with an aqueous solution containing physiologically active peptide.

ACTIVITY - Vulnerary.
No supporting data available.
MECHANISM OF ACTION - None given.
USE - As physiologically active peptide sustained release **collagen** compact, for supplying physiologically active peptide to regeneration portion of living tissue.

ADVANTAGE - The **collagen** compact enables efficient and sustained release of physiologically active peptide, which is improved for prolonged period. The peptide in the **collagen** compact does not require any caution during formulating, as the releasing rate of peptide is low and controlled by the cross-linking of the **collagen.** Hence, sustained release of the peptide even in low dosages for required activity is efficiently attained. The **collagen** enables controlled in vivo releasing rate of the peptide with respect to the extension of the retentivity inside the body, when compared to conventional sustained release formulation. Hence, the release of peptide is provided in desired period and desired amount to the regeneration portion of the living tissue. The **collagen** does not affect the tissue regeneration. The peptide in the **collagen** compact is not decomposed in vivo, and hence the activity of peptide is efficiently maintained. The peptide in **collagen** compact efficiently reduces side effect to the target portions. The method enables efficient manufacture of physiologically active peptide sustained release **collagen** compact.

125I-labeled transdermal growth factor- beta (TGF- beta)1 impregnated **collagen sponge** was embedded subcutaneously to back portion of 6 week-old ddy:Std female mouse (test). Aqueous solution of 125I-labeled TGF- beta 1 was subcutaneously administered to mouse (control). The test and control mice were killed and

tissue fluid from the back portion skin of the mice, was collected, and radiation activity was respectively measured. The results showed that the radiation activity of TGF- beta 1 impregnated and embedded to **collagen sponge** had in vivo sustained release of the peptide for prolonged period, when compared with the control group in which the radiation activity of TGF- beta 1 was absent within 1 day of administration in the administered portion.
Dwg.1/6

L110 ANSWER 16 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-612648 [71] WPIX
DOC. NO. CPI: C2001-183193
TITLE: Chitosan condensation product with bisulfite addition compound used for pharmaceutical excipients, transdermal controlled drug release patches, forms a stable anionic polyelectrolyte solution in water at neutral pH.
DERWENT CLASS: A11 A96 B07 C03 D13 D15 D21 D22 F01
INVENTOR(S): ROBERTS, G A F
PATENT ASSIGNEE(S): (BTGI-N) BTG INT LTD; (ROBE-I) ROBERTS G A F
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
GB 2358637	A	20010801	(200171)*		17
WO 2001055220	A1	20010802	(200171)	EN	
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001030333	A	20010807	(200174)		
EP 1250359	A1	20021023	(200277)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
US 2003055211	A1	20030320	(200323)		
JP 2003523459	W	20030805	(200353)		30

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
GB 2358637	A	GB 2000-1734	20000127
WO 2001055220	A1	WO 2001-GB289	20010125
AU 2001030333	A	AU 2001-30333	20010125
EP 1250359	A1	EP 2001-902472	20010125
		WO 2001-GB289	20010125
US 2003055211	A1	WO 2001-GB289	20010125
		US 2002-169145	20020627
JP 2003523459	W	JP 2001-561067	20010125
		WO 2001-GB289	20010125

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001030333	A	Based on	WO 2001055220
EP 1250359	A1	Based on	WO 2001055220
JP 2003523459	W	Based on	WO 2001055220

PRIORITY APPLN. INFO: GB 2000-1734 20000127
AN 2001-612648 [71] WPIX
AB GB 2358637 A UPAB: 20011203
NOVELTY - A condensation product of chitosan and bisulfite addition compound forms a stable anionic polyelectrolyte solution in water at neutral pH.

DETAILED DESCRIPTION - A condensation product of chitosan and bisulfite addition compound (HOCRR'SO3A) forms a stable anionic polyelectrolyte solution in water at neutral pH.

R, R' = hydrogen, optionally branched, optionally substituted (un)saturated 1-10C hydrocarbon or optionally substituted alicyclic, aromatic carbocyclic or heterocyclic ring or R, R' together represent optionally substituted alicyclic or heterocyclic ring;

A = alkali metal or ammonium ion.

INDEPENDENT CLAIMS are also included for the following: (i) Polymer comprising monomer units of formula K, L, M and N in the proportions k, l, m and n respectively. The proportions k, l, m and n satisfy the relation: ((m+2 multiply n)/(k+l+m+n)) multiply 100% at least 10%; (ii) Aqueous solution of the condensation product; (iii) Aqueous solution of the polymer; (iv) Film, fiber, powder, **sponge**, **foam** or **gel** prepared from the aqueous solution of the condensation product of polymer; (v) Chitosan regenerated from condensation product by treatment with acid or alkali; (vi) Chitosan regenerated from polymer by treatment with acid or alkali; (vii) Preparation of condensation product which involves slurrying chitosan with solution of bisulfite addition compound; (viii) Preparation of polymer blend which involves blending the aqueous solution of the polymer with alginate in the weight ratio of 5:1-1:5 and treating the polymer blend with an acid or alkali to regenerate chitosan or its salt; (ix) Novel method for extraction of chitosan from chitin/calcium carbonate mixture, which involves deacetylating chitin/calcium carbonate mixture with solution containing bisulfite addition compound or precursor of the addition compound, removing undissolved solids from the solution and treating it with acid or alkali to regenerate and precipitate chitosan followed by collecting the resultant precipitate and **drying**; (x) Preparation of condensation product from chitin/calcium carbonate mixture which involves deacetylating chitin/calcium carbonate mixture with solution containing bisulfite addition compound or precursor of the addition compound, removing undissolved solids from the solution, admixing the solution with water miscible organic solvent followed by collecting the precipitate and **drying**.

USE - The chitosan product is used for wound and burn dressings, pharmaceutical excipients, transdermal controlled release drug patches, sutures, coatings, adjuvants for calcium phosphate bone cements, scaffold materials for tissue engineering applications, medical device materials, coatings for conventional medical devices, surgical adhesion barriers, periodontal disease treatment and sealing of arterial puncture sites after catheterization. The chitosan products are also used in food and beverage industry as preservatives, stabilizers and hydration control coatings. The products are also used in cosmetics and toiletries, as seed treatment agent in agriculture, as pesticide in water treatment for heavy metal ion extraction and as membrane for use in separation process.

ADVANTAGE - The chitosan product forms stable anionic solutions in water. The solubility of condensation product enables the novel extraction of chitosan from chitin/calcium carbonate mixture. The films and fibers produced from polymer solution have greater mechanical strength, flexibility and optical clarity.
Dwg.0/0

L110 ANSWER 17 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:861927 HCAPLUS
DOCUMENT NUMBER: 137:145457
TITLE: Use of **collagen sponge** incorporating transforming growth factor-β1 to promote bone repair in skull defects in rabbits
AUTHOR(S): Ueda, Hiroki; Hong, Liu; Yamamoto, Masaya; Shigeno, Keiji; Inoue, Masatoshi; Toba, Toshinari; Yoshitani, Makoto; Nakamura, Tatsuo; Tabata, Yasuhiko; Shimizu, Yasuhiko
CORPORATE SOURCE: Institute for Frontier Medical Sciences, Kyoto University, Sakyo-ku, Kyoto, 606-8507, Japan
SOURCE: Biomaterials (**2001**), Volume Date 2002, 23(4), 1003-1010
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The objective of this study was to evaluate the potential of **collagen sponge** incorporating transforming growth factor-β1 (TGF-β1) to enhance bone repair. The **collagen sponge** was prepared by freeze-**drying** aqueous **foamed collagen** solution Thermal crosslinking was performed in a vacuum at 140° for periods ranging from 1 to 48 h to prepare a number of fine **collagen sponges.** When **collagen sponges** incorporating 125I-labeled TGF-β1 were placed in phosphate-buffered saline (PBS) solution at 37°, a small amount of TGF-β1 was released for the first hour, but no further release was observed thereafter, irresp. of the amount of crosslinking time the **sponges** had received. **Collagen sponges** incorporating 125I-labeled TGF-β1 or simply labeled with 125I were implanted into the skin on the backs of mice. The radioactivity of the 125I-labeled TGF-β1 in the **collagen sponges** decreased with time; the amount of TGF-β1 remaining dependent on the crosslinking time. The in vivo retention of TGF-β1 was longer in those **sponges** that had been subjected to longer crosslinking times. The in vivo release profile of the TGF-β1 was matched with the degradation profile of the **sponges.** A SEM observation revealed no differences in structure among **sponges** subjected to different crosslinking times. The TGF-β1 immobilized in the **sponges** was probably released in vivo as a result of the **sponge** biodegrdn. because TGF-β1 release did not occur in in vitro conditions in which **sponges** did not degrade. We applied **collagen sponges** incorporating 0.1 μg TGF-β1 to skull defects in rabbits in stress-unloaded bone situations. Six weeks later, the skull defects were covered by newly formed bone, in marked contrast to the results obtained with a TGF-β1-free empty **collagen sponge** and 0.1 μg of free TGF-β1. Thus, the **collagen sponges** were able to release biol. active TGF-β1 and were a promising material for bone repair.

CC 63-7 (Pharmaceuticals)
ST **collagen sponge** transforming growth factor bone repair; skull defect bone **collagen** transforming growth factor
IT Bone
Skull
(**collagen sponge** incorporating transforming growth factor-β1 to promote bone repair in skull defects)
IT **Collagens, biological studies**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**collagen sponge** incorporating transforming growth

factor-β1 to promote bone repair in skull defects)
IT Medical goods
(**sponges; collagen sponge** incorporating transforming growth factor-β1 to promote bone repair in skull defects)
IT Crosslinking
(thermal; **collagen sponge** incorporating transforming growth factor-β1 to promote bone repair in skull defects)
IT Transforming growth factors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(β1-; **collagen sponge** incorporating transforming growth factor-β1 to promote bone repair in skull defects)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 18 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2001507762 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11556744
TITLE: A trial to **prepare** biodegradable collagen-hydroxyapatite composites for bone repair.
AUTHOR: John A; Hong L; Ikada Y; Tabata Y
CORPORATE SOURCE: Institute for Frontier Medical Sciences, Kyoto University, Japan.
SOURCE: Journal of biomaterials science. Polymer edition, **(2001)** 12 (6) 689-705.
Journal code: 9007393. ISSN: 0920-5063.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 20010917
Last Updated on STN: 20020201
Entered Medline: 20020131

AB This paper is a trial to **prepare** collagen-hydroxyapatite composites in vitro by an alternate immersion method. Collagen **sponges** of different biodegradabilities were **prepared** through chemical cross-linking of Type I collagen with glutaraldehyde (GA) at concentrations of 0.2, 1.0, and 2.0 wt%. The **sponges** were immersed at 37 degrees C in Tris-HCl-buffered solution containing 200 mM CaCl2 (pH 7.4) for 2 h and then in an aqueous solution of 120 mM Na2HPO4 (pH 9.3) for a 2 h further (one immersion cycle). The alternate immersion cycle was repeated for different times to obtain collagen-hydroxyapatite composites. The characterization of the resulting composites was performed by Fourier transform-infrared spectroscopy (FT-IR). X-ray diffraction (XRD), and scanning electron microscopy (SEM). The weight of composites increased with an increase in immersion cycles and the rate of increase became greater with higher GA cross-linking levels for collagen **sponge preparation.** The pH of the phosphate solution decreased with the immersion cycle, which suggests H+ generation accompanied hydroxyapatite formation. Irrespective of the GA concentration and immersion cycle, every composite showed IR absorption bands attributable to phosphate and hydroxyl groups at 950-1100 or 550-650 and 3000-3500 cm(-1) and broad peaks specific to hydroxyapatite on the XRD charts. SEM study revealed small white clusters of hydroxyapatite interspersed uniformly on/in the collagen framework without any preferential orientation. The composite **prepared** from 0.2 wt% GA cross-linked collagen **sponge** which showed favourable

characteristics was applied to a rat skull defect to evaluate its osteoconductivity as well as biodegradability. The formation of new bone tissue was histologically observed at the defect 12 weeks after application in marked contrast to the collagen **sponge** alone. The composite degraded without any inflammation reaction. It is concluded that the collagen-hydroxyapatite composite **prepared** by the present method is a biodegradable biomaterial of osteoconductivity applicable to bone repair.

CT Check Tags: Male; Support, Non-U.S. Gov't
Animals
Biocompatible Materials
*Bone Substitutes: CH, chemistry
*Bone and Bones: CH, chemistry
Clinical Trials
***Collagen: CH, chemistry**
*Durapatite: CH, chemistry
Microscopy, Electron, Scanning
Rats
Rats, Inbred F344
Spectroscopy, Fourier Transform Infrared
Temperature
X-Ray Diffraction

RN 1306-06-5 (Durapatite); 9007-34-5 (Collagen)
CN 0 (Biocompatible Materials); 0 (Bone Substitutes)

L110 ANSWER 19 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2001326670 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11394401
TITLE: Hyaluronan supports recombinant human bone morphogenetic protein-2 induced bone reconstruction of advanced alveolar ridge defects in dogs. A pilot study.
AUTHOR: Hunt D R; Jovanovic S A; Wikesjo U M; Wozney J M; Bernard G W
CORPORATE SOURCE: Division of Oral Biology & Medicine, School of Dentistry, University of California, Los Angeles 90095, USA.
SOURCE: Journal of periodontology, **(2001 May)** 72 (5) 651-8.
Journal code: 8000345. ISSN: 0022-3492.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Dental Journals; Priority Journals
ENTRY MONTH: 200110
ENTRY DATE: Entered STN: 20011029
Last Updated on STN: 20011029
Entered Medline: 20011025

AB BACKGROUND: Prosthetic-driven implant dentistry requires predictable procedures for alveolar ridge augmentation. The objective of this pilot study was to evaluate bone regeneration in mandibular, full-thickness, alveolar ridge, saddle-type defects following surgical implantation of recombinant human bone morphogenetic protein-2 (rhBMP-2) in a novel hyaluronan (HY) **sponge** carrier. This **sponge** was fabricated from auto-crosslinked HY. METHODS: Alveolar ridge defects (approximately 15 x 10 x 10 mm), 2 per jaw quadrant, were surgically **prepared** in each of 3 young adult American fox hounds. Four defects were immediately implanted with rhBMP-2/HY. Three defects were implanted with rhBMP-2 in an absorbable collagen **sponge** (ACS) carrier (positive control). The rhBMP-2 solution (1.5 ml at 0.2 mg/ml) was soak-loaded onto the HY and ACS **sponges.** Three defects were implanted with HY **sponges** soak-loaded with buffer without

rhBMP-2 (negative control), while 2 defects served as surgical controls. The animals were euthanized at 12 weeks postsurgery for histometric analysis. RESULTS: Clinically, alveolar ridge defects receiving rhBMP-2/ACS exhibited a slight supracrestal expansion, while defects receiving rhBMP-2/HY were filled to contour. In contrast, the HY and surgical controls exhibited ridge collapse. rhBMP-2/HY-treated defects exhibited a dense bone quality without radiolucent regions observed in defects treated with rhBMP-2/ACS. The histometric analysis showed 100% bone fill for the rhBMP-2/ACS defects and 94%, 58%, and 65% bone fill for the rhBMP-2/HY, HY, and surgical control defects, respectively. CONCLUSIONS: The conclusions are based on data from 2 of 3 animals in the study. In one animal, no response to rhBMP-2 was observed with either carrier, and the animal may have been a non-responder of unknown nature. With this limitation, the observations herein suggest that: 1) HY supports significant bone induction by rhBMP-2; 2) the rhBMP-2-induced bone assumes qualities of the immediate resident bone; 3) HY alone exhibits no apparent osteoconductive potential; and 4) HY appears to resorb within a 12-week healing interval in the absence or presence of rhBMP-2. Thus, HY appears to be a suitable candidate carrier for rhBMP-2.

CT Check Tags: Human
Absorbable Implants
*Alveolar Bone Loss: DT, drug therapy
Alveolar Bone Loss: SU, surgery
Alveolar Process: PA, pathology
Alveolar Process: RA, radiography
Alveolar Ridge Augmentation
Animals
*Bone Morphogenetic Proteins: TU, therapeutic use
*Bone Regeneration: DE, drug effects
*Bone Substitutes: TU, therapeutic use
Collagen: CH, chemistry
Collagen: TU, therapeutic use
Dogs
Drug Carriers
Hyaluronic Acid: CH, chemistry
*Hyaluronic Acid: TU, therapeutic use
Osteogenesis: DE, drug effects
Pilot Projects
Recombinant Proteins
*Transforming Growth Factor beta: TU, therapeutic use

RN 9004-61-9 (Hyaluronic Acid); 9007-34-5 (Collagen)

CN 0 (Bone Morphogenetic Proteins); 0 (Bone Substitutes); 0 (Drug Carriers); 0 (Recombinant Proteins); 0 (Transforming Growth Factor beta); 0 (bone morphogenetic protein 2)

L110 ANSWER 20 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2002014856 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11410892
TITLE: Control of pore structure and size in freeze-dried collagen **sponges.**
AUTHOR: Schoof H; Apel J; Heschel I; Rau G
CORPORATE SOURCE: Helmholtz-Institute for Biomedical Engineering at the Aachen University of Technology (RWTH), Pauwelsstr. 20, D-52074 Aachen, Germany.
SOURCE: Journal of biomedical materials research, **(2001)** 58 (4) 352-7.
Journal code: 0112726. ISSN: 0021-9304.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020121
Entered Medline: 20011207

AB Because of many suitable properties, collagen **sponges** are used as an acellular implant or a biomaterial in the field of tissue engineering. Generally, the inner three-dimensional structure of the **sponges** influences the behavior of cells. To investigate this influence, it is necessary to develop a process to produce **sponges** with a defined, adjustable, and homogeneous pore structure. Collagen **sponges** can be produced by freeze-drying of collagen suspensions. The pore structure of the freeze-dried **sponges** mirrors the ice-crystal morphology after freezing. In industrial production, the collagen suspensions are solidified under time- and space-dependent freezing conditions, resulting in an inhomogeneous pore structure. In this investigation, unidirectional solidification was applied during the freezing process to produce collagen **sponges** with a homogeneous pore structure. Using this technique the entire sample can be solidified under thermally constant freezing conditions. The ice-crystal morphology and size can be adjusted by varying the solute concentration in the collagen suspension. Collagen **sponges** with a very uniform and defined pore structure can be produced. Furthermore, the pore size can be adjusted between 20-40 microm. The thickness of the **sponges** **prepared** during this research was 10 mm.

CT Check Tags: Support, Non-U.S. Gov't
*Biocompatible Materials: CH, chemistry
***Collagen: CH, chemistry**
Freeze Drying

RN 9007-34-5 (Collagen)
CN 0 (Biocompatible Materials)

L110 ANSWER 21 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2001479224 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11523029
TITLE: Development of an artificial dermis **preparation** capable of silver sulfadiazine release.
AUTHOR: Kawai K; Suzuki S; Tabata Y; Taira T; Ikada Y; Nishimura Y
CORPORATE SOURCE: Department of Plastic and Reconstructive Surgery, Postgraduate School of Medicine, Kyoto University, 54 Kawahara-cho Shogoin, Sakyo-ku, Kyoto 606-8507, Japan.. kawai@kuhp.kyoto-u.ac.jp
SOURCE: Journal of biomedical materials research, **(2001 Dec 5)** 57 (3) 346-56.
Journal code: 0112726. ISSN: 0021-9304.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20010828
Last Updated on STN: 20020122
Entered Medline: 20011204

AB This article describes the antibacterial effects of an artificial dermis impregnated with silver sulfadiazine (Ag-SD) in vitro as well as in vivo. In the in vitro test, silver release from the artificial dermis impregnated with Ag-SD, by immersion in collagenase solution was controlled by the degradation of the collagen **sponge.**The artificial dermis impregnated with 3% or higher doses of Ag-SD completely

suppressed the growth of Pseudomonas aeruginosa (Ps.) or Staphylococcus aureus (St.). The cytotoxicity test revealed that impregnation of 5% or higher doses of Ag-SD suppressed the growth of fibroblasts. However, when the artificial dermis impregnated with Ag-SD was implanted into full-thickness skin defects on the backs of guinea pigs, no tissue damage was histologically observed around the implanted site of the dermis. In the in vivo test, the artificial dermis impregnated with 10% Ag-SD, which was grafted on experimentally contaminated wounds in the backs of guinea pigs, macroscopically suppressed degradation of the collagen **sponge**, and significantly reduced the growth of both Ps. and St., compared with artificial dermis without Ag-SD. We conclude that collagen **sponge** impregnated with Ag-SD is a promising artificial dermis applicable to treat contaminated wounds.

CT Check Tags: Human
Animals
*Anti-Infective Agents, Local: AD, administration & dosage
Anti-Infective Agents, Local: CH, chemistry
Anti-Infective Agents, Local: PD, pharmacology
Bacteria: DE, drug effects
Cell Survival: DE, drug effects
Collagen: CH, chemistry
Collagenases: CH, chemistry
Fibroblasts: DE, drug effects
Guinea Pigs
Microscopy, Electron, Scanning
Silver: CH, chemistry
*Silver Sulfadiazine: AD, administration & dosage
Silver Sulfadiazine: CH, chemistry
Silver Sulfadiazine: PD, pharmacology
*Skin, Artificial

RN 22199-08-2 (Silver Sulfadiazine); 7440-22-4 (Silver); 9007-34-5 (Collagen)
CN 0 (Anti-Infective Agents, Local); EC 3.4.24.- (Collagenases)

L110 ANSWER 22 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2002015618 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11416843
TITLE: Poly(DL-lactic-co-glycolic acid) **sponge** hybridized with collagen **microsponges** and deposited apatite particulates.
AUTHOR: Chen G; Ushida T; Tateishi T
CORPORATE SOURCE: Tissue Engineering Research Center, National Institute of Advanced Industrial Science and Technology, Central 4, 1-1-1 Higashi, Tsukuba, Ibaraki 305-8562, Japan.. guoping-chen@aist.go.jp
SOURCE: Journal of biomedical materials research, **(2001 Oct)** 57 (1) 8-14.
Journal code: 0112726. ISSN: 0021-9304.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20020121
Last Updated on STN: 20020121
Entered Medline: 20011207

AB A novel three-dimensional porous scaffold has been developed for bone tissue engineering by hybridizing synthetic poly(DL-lactic-co-glycolic acid) (PLGA), naturally derived collagen, and inorganic apatite. First, a

porous PLGA **sponge** was **prepared.** Then, collagen **microsponges** were formed in the pores of the PLGA **sponge** . Finally, apatite particulates were deposited on the surfaces of the collagen **microsponges** in the pores of PLGA **sponge.** The PLGA-collagen **sponge** served as a template for apatite deposition, and the deposition was accomplished by alternate immersion of PLGA-collagen **sponge** in CaCl(2) and Na(2)HPO(4) aqueous solutions and centrifugation. The deposited particulates were small and scarce after one cycle of alternate immersion. Their number and size increased with the number of alternate immersion cycles. The surfaces of collagen **microsponges** were completely covered with apatite after three cycles of alternate immersion. The porosity of the hybrid **sponge** decreased gradually as the number of alternate immersion increased. Energy-dispersive spectroscopy analysis and X-ray diffraction spectra showed that the calcium-to-phosphorus molar ratio of the deposited particulates and the level of crystallinity increased with the number of alternate immersion cycles, and became almost the same as that of hydroxyapatite after four cycles of alternate immersion.The deposition process was controllable. Use of the PLGA **sponge** as a mechanical skeleton facilitated formation of the PLGA-collagen-apatite hybrid **sponge** into desired shapes and collagen **microsponges** facilitated the uniform deposition of apatite particulates throughout the **sponge.** The PLGA-collagen-apatite hybrid **sponge** would serve as a useful three-dimensional porous scaffold for bone tissue engineering.

CT Check Tags: Support, Non-U.S. Gov't
Apatites: CH, chemistry
*Biocompatible Materials: CH, chemistry
***Collagen: CH, chemistry**
*Lactic Acid: CH, chemistry
*Polyglycolic Acid: CH, chemistry
*Polymers: CH, chemistry

RN 26009-03-0 (Polyglycolic Acid); 50-21-5 (Lactic Acid); 9007-34-5 (Collagen)

CN 0 (Apatites); 0 (Biocompatible Materials); 0 (Polymers); 0 (polylactic acid-polyglycolic acid copolymer)

L110 ANSWER 23 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:497470 BIOSIS
DOCUMENT NUMBER: PREV200000497591
TITLE: Apparatus for **preparing** skin cell culture.
AUTHOR(S): Sugiyama, Akihis [Inventor, Reprint author]; Moriyama, Takeshi [Inventor]; Hamano, Kyoko [Inventor]
CORPORATE SOURCE: Kasugai, Japan
ASSIGNEE: Menicon Co., Ltd., Nagoya, Japan
PATENT INFORMATION: US 6057148 May 02, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 2, 2000) Vol. 1234, No. 1. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Nov 2000
Last Updated on STN: 10 Jan 2002

AB A process for **preparing** a culture skin which comprises the following steps: a) a step in which a culture skin matrix comprising a **collagen sponge**, a **collagen** sheet or a collagen gel is **prepared** in a means having a projection to provide said matrix with a penetrating pore, b) a step in which a skin-derived cell is seeded and cultured on said matrix, and c) a step in

which the culture skin is provided with a penetrating pore by the means having the projection before said culture skin covers a skin defect, if necessary, the steps a) and b) are simultaneously carried out; a culture skin matrix and a culture skin obtained thereby. According to the present invention, a culture skin can be **prepared** wherein sufficient nutrition supply to epidermal cells and/or fibroblasts cultured and proliferated and discharge of exudate excessively pooled in the wound can be smoothly **performed**, while contraction is inhibited, by producing a penetrating pore in the culture skin before covering the wound with the culture skin with a means which requires no pretreatment in order to prevent the flow and loss of cells which are caused in seeding cells on a collagen matrix.

NCL 435284100
CC General biology - Miscellaneous 00532
IT Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); Equipment, Apparatus, Devices and Instrumentation; **Methods and Techniques**
IT Parts, Structures, & Systems of Organisms
skin
IT Chemicals & Biochemicals
collagen
IT Methods & Equipment
skin cell culture; skin cell culture **preparation**; skin cell culture **preparation** apparatus

L110 ANSWER 24 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 2000:430851 BIOSIS
DOCUMENT NUMBER: PREV200000430851
TITLE: Skin culture and process for **preparing** the same.
AUTHOR(S): Sugiyama, Akihis [Inventor, Reprint author]; Moriyama, Takeshi [Inventor]; Hamano, Kyoko [Inventor]
CORPORATE SOURCE: Kasugai, Japan
ASSIGNEE: Menicon Co., Ltd., Nagoya, Japan
PATENT INFORMATION: US 6043089 March 28, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 28, 2000) Vol. 1232, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 11 Oct 2000
Last Updated on STN: 10 Jan 2002

AB A process for **preparing** a skin culture which comprises the following steps: a) a step in which a skin culture matrix comprising a **collagen sponge**, a **collagen** sheet or a collagen gel is **prepared** in a means having a projection to provide said matrix with a penetrating pore, b) a step in which a skin-derived cell is seeded and cultured on said matrix, and c) a step in which the skin culture is provided with a penetrating pore by the means having the projection before said skin culture covers a skin defect, if necessary, the steps a) and b) are simultaneously carried out; a skin culture matrix and a skin culture obtained thereby. According to the present invention, a skin culture can be **prepared** wherein sufficient nutrition supply to epidermal cells and/or fibroblasts cultured and proliferated and discharge of exudate excessively pooled in the wound can be smoothly **performed**, while contraction is inhibited, by producing a penetrating pore in the culture skin before covering the wound with the culture skin with a means which requires no pretreatment in order to prevent the flowing out and losing of cells which are caused in seeding

cells on a collagen matrix.
NCL 435371000
CC General biology - Miscellaneous 00532
IT Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); **Methods and Techniques**
IT Parts, Structures, & Systems of Organisms
epidermal cell: integumentary system; skin: integumentary system
IT Chemicals & Biochemicals
collagen
IT Methods & Equipment
skin culture: culture method

L110 ANSWER 25 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 2000:416428 BIOSIS
DOCUMENT NUMBER: PREV200000416428
TITLE: Composite living skin equivalent.
AUTHOR(S): Eisenberg, Mark [Inventor, Reprint author]
CORPORATE SOURCE: Dover Heights, Australia
ASSIGNEE: Ortec International, Inc., New York, NY, USA
PATENT INFORMATION: US 6039760 March 21, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 21, 2000) Vol. 1232, No. 3. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Oct 2000
Last Updated on STN: 8 Jan 2002
AB Skin equivalents and processes for **preparing** them are described. The living skin equivalent comprises a layer of cultured keratinocyte cells, a layer of high purity, non-porous collagen and a dermal layer of cultured fibroblast cells in a porous, cross-linked **collagen sponge.** Processes are described for producing the skin equivalent with descriptions on how to obtain and treat skin precursor materials to yield suitable fibroblasts and keratinocytes. The collagen layers, the physical **forms** thereof, and treatments thereof are also described. Preferably, the non-porous, highly-purified collagen is selected from Type 1, Type 3, or mixtures of Type 1 and Type 3 collagen. The collagen is purified ideally by treatment with pepsin, to remove antigenic substances. The **collagen sponge** used can be any suitable **form** of **collagen sponge** which will support fibroblast growth. The keratinocytes used in the invention are preferably **prepared** by the "drop" method spotted evenly on culture media and incubated to coalescence.
NCL 623015000
CC General biology - Miscellaneous 00532
IT Major Concepts
Biomedical Engineering (Allied Medical Sciences); Equipment, Apparatus, Devices and Instrumentation; Dermatology (Human Medicine, Medical Sciences); **Methods and Techniques**
IT Parts, Structures, & Systems of Organisms
skin
IT Methods & Equipment
living skin equivalent; production of living skin equivalent

L110 ANSWER 26 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:123952 HCAPLUS
DOCUMENT NUMBER: 132:298656
TITLE: Influence of the acid type on the physical and drug

release properties of chitosan-gelatin **sponges**
AUTHOR(S): Leffler, C. C.; Muller, B. W.
CORPORATE SOURCE: Department of Pharmaceutics and Biopharmaceutics of Christian Albrecht University, Kiel, D-24117, Germany
SOURCE: International Journal of Pharmaceutics (**2000**), 194(2), 229-237
CODEN: IJPHDE; ISSN: 0378-5173
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The influence of acid type used to dissolve chitosan on the resulting **sponge** phys. properties, and their consequent effect on the drug release were investigated. Chitosan was dissolved in different acid solns. and chitosan-gelatin **sponges** were produced by frothing up the polymer solution and then freeze-**drying** the **foam.** Prednisolone was used as a model drug. Using tartaric or citric acid resulted in instable, soft, elastic and disintegrating **sponges** with fast drug release. Elastic but harder **sponges** from stable **foams** were obtained when hydrochloric or lactic acid were used. The use of acetic or formic acid enabled the production of stable **foams**, soft and elastic **sponges** and a slow drug release. The rate of drug release was decreased by crosslinking the polymers with glutaraldehyde, but only if acetic, formic or acetic acid were used. Therefore, it is possible to manipulate the mech. properties and the drug release rate by using different acids to dissolve chitosan.

CC 63-5 (Pharmaceuticals)
ST drug release chitosan gelatin **sponge** acid
IT Dissolution rate
(acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
IT Acids, properties
RL: PRP (Properties)
(acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
IT **Gelatins, biological studies**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
IT Drug delivery systems
Medical goods
(**sponges**; acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
IT 50-21-5, Lactic acid, properties 64-18-6, Formic acid, properties 64-19-7, Acetic acid, properties 77-92-9, Citric acid, properties 87-69-4, Tartaric acid, properties 7647-01-0, Hydrochloric acid, properties
RL: PRP (Properties)
(acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
IT 50-24-8, Prednisolone 9012-76-4, Chitosan
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(acid type effect on phys. and drug release properties of chitosan-gelatin **sponges**)
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 27 OF 50 MEDLINE on STN
ACCESSION NUMBER: 2000165446 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10699712
TITLE: Microencapsulation of peptides and proteins.
AUTHOR: Hildebrand G E; Tack J W
CORPORATE SOURCE: Schering AG, Pharmaceutical Development, D-13342, Berlin, Germany.
SOURCE: International journal of pharmaceutics, **(2000 Mar 10)** 196 (2) 173-6.
Journal code: 7804127. ISSN: 0378-5173.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 20000518
Last Updated on STN: 20000518
Entered Medline: 20000511

AB Microcapsules were **prepared** by using a double-emulsion technique. A new production method called 'induced phase separation method' was applied to encapsulate peptides and proteins. To find the optimal adjuvants a matrix was set up combining the appropriate organic solvents and the suitable surfactants. The polymer was chosen with regard to the required release period. The aqueous drug solution was intensively mixed with the organic polymer solution. An aqueous surfactant solution was slowly added to the O/W emulsion. The obtained W/O/W emulsion is stirred under partial vacuum conditions until the organic solvent was removed. After removing the solvent from the W/O/W emulsion the microcapsules were washed and lyophilized. The morphology of the microparticles (spheres, **sponges**, capsules, surplus polymer) was checked by microscopy, particle size distributions were measured by laser diffraction.

CT Capsules
*Drug Compounding: MT, methods
Emulsions: CH, chemistry
Particle Size
*Peptides: CH, chemistry
***Proteins: CH, chemistry**
Surface-Active Agents: CH, chemistry
Suspensions: CH, chemistry
Viscosity

CN 0 (Capsules); 0 (Emulsions); 0 (Peptides); 0 (Proteins); 0 (Surface-Active Agents); 0 (Suspensions)

L110 ANSWER 28 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:87479 HCAPLUS
DOCUMENT NUMBER: 132:98167
TITLE: Agent for producing a long-lasting saturation effect
INVENTOR(S): Beisel, Guenther
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9823259	A1	19980604	WO 1997-EP2676	19970526 <--

W: AU, BR, BY, CA, CH, CN, CZ, FI, HU, JP, KP, KR, MX, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2273055	AA	19980604	CA 1997-2273055	19970526	<--
AU 9730919	A1	19980622	AU 1997-30919	19970526	<--
AU 727639	B2	20001221			
EP 948316	A1	19991013	EP 1997-925943	19970526	<--
EP 948316	B1	20030806			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

SI 20007	C	20000229	SI 1997-20084	19970526	<--
CN 1247467	A	20000315	CN 1997-180994	19970526	<--
BR 9713303	A	20000321	BR 1997-13303	19970526	<--
NZ 335956	A	20000929	NZ 1997-335956	19970526	<--
JP 2001510460	T2	20010731	JP 1998-526120	19970526	<--
AT 246488	E	20030815	AT 1997-925943	19970526	<--
MX 9904913	A	20000430	MX 1999-4913	19990527	<--

PRIORITY APPLN. INFO.:

WO 1996-EP5240	A	19961127	<--
WO 1997-EP2676	W	19970526	<--

AB An orally administered agent, containing material which is insol. or poorly soluble in water and gastrointestinal fluids, has the shape of a spongy formed body composed of an elastic material which can be deformed by mastication and deglutition, reduced in form and compressed, so that it can pass through the esophagus. This body can be decompressed, once it has left the esophagus, by drinking liqs. and gastrointestinal fluids, thereby increasing its volume in the stomach to produce an effect of physiol. saturation during its time in the stomach. This causes delayed release of integrated active substances and constituents. The formed body is then eliminated via the intestine after several hours in the stomach in an unabsorbed or poorly absorbable state.

IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)

ST oral drug delivery compressed **sponge**; **foam** compressed oral drug delivery

IT Drug delivery systems
(delayed release, **foams**, oral; oral dosage form for producing a long-lasting saturation effect)

IT Biopolymers
Collagens, biological studies
Proteins, general, biological studies
Synthetic fibers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**foams**; oral dosage form for producing a long-lasting saturation effect)

IT Compression
Elastic materials
Flavoring materials
Freeze **drying**
Imbibition
Nutrients
Viscose
(oral dosage form for producing a long-lasting saturation effect)

IT Plastic **foams**
Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral dosage form for producing a long-lasting saturation effect)

IT Drug delivery systems
(oral, **foams**; oral dosage form for producing a long-lasting saturation effect)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L110 ANSWER 29 OF 50 MEDLINE on STN
ACCESSION NUMBER: 1998174433 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9513248
TITLE: Release of antibiotics from collagen dressing.
AUTHOR: Grzybowski J; Antos-Bielska M; Oldak E; Trafny E A
CORPORATE SOURCE: Department of Microbiology, Military Institute of Hygiene and Epidemiology, Warsaw, Poland.
SOURCE: Polimery w medycynie, **(1997)** 27 (3-4) 3-9.
Journal code: 7509477. ISSN: 0370-0747.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199804
ENTRY DATE: Entered STN: 19980507
Last Updated on STN: 19980507
Entered Medline: 19980428

AB Our new collagen dressing has been developed recently. Three types (A, B, and C) of the dressing were **prepared** in this study. Each type contained bacitracin, neomycin or colistin. The antibiotic was input into: i. collagen **sponge** (CS)--type A, ii. layer of limited hydrophobicity (LLH)--type B, and iii. into both CS and LLH layers--type C. The final concentration of the antibiotic that resulted from the loading level was 2 mg/cm2 for the dressings of type A and B and 4 mg/cm2 for the dressing of type C. The antibiotics were then extracted from the pieces of dressings for two days through dialysis membrane. Susceptibility of 54 bacterial strains (S. aureus, P. aeruginosa, and Acinetobacter) isolated from burn wounds were tested to the three antibiotics used for **preparation** of the dressings. The results of the study evidenced that efficiency of released of antibiotics into the extracts depended on the kind of antibiotic and on the type of dressing. The concentration of the antibiotics proved to be much higher than MIC90 values of the bacterial isolates tested in respect to their susceptibility. The dressing containing mixture of the three antibiotics in two layers--CS and LLH is now considered as potentially effective for care of infected wounds. It may be useful for the treatment of infected wounds or for profilaxis of contaminated wounds, ensuring: i. sufficient antimicrobial activity in wound, and ii. optimal wound environment for the presence of collagenic biomaterial on the damaged tissue.

CT Check Tags: Human
Acinetobacter: DE, drug effects
*Anti-Bacterial Agents: AD, administration & dosage
Anti-Bacterial Agents: CH, chemistry
*Bacitracin: AD, administration & dosage
Bacitracin: CH, chemistry
*Biological Dressings
Burns: DT, drug therapy
Burns: MI, microbiology
*Colistin: AD, administration & dosage
Colistin: CH, chemistry
***Collagen: CH, chemistry**
Dosage Forms
Drug Resistance, Microbial
Microbial Sensitivity Tests
*Neomycin: AD, administration & dosage
Neomycin: CH, chemistry
Pseudomonas aeruginosa: DE, drug effects
Staphylococcus aureus: DE, drug effects

RN 1066-17-7 (Colistin); 1404-04-2 (Neomycin); 1405-87-4 (Bacitracin); 9007-34-5 (Collagen)

CN 0 (Anti-Bacterial Agents); 0 (Dosage Forms)

L110 ANSWER 30 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1996:182130 BIOSIS
DOCUMENT NUMBER: PREV199698738259
TITLE: Confocal laser-scanning microscopy for determining the **structure** of and keratinocyte infiltration through **collagen sponges.**
AUTHOR(S): Hanthamrongwit, M.; Wilkinson, R.; Osborne, C.; Reid, W. H.; Grant, M. H. [Reprint author]
CORPORATE SOURCE: Bioeng. Unit, Univ. Strathclyde, Wolfson Cent., 106 Rottenrow, Glasgow G4 ONW, UK
SOURCE: Journal of Biomedical Materials Research, (1996) Vol. 30, No. 3, pp. 331-339.
CODEN: JBMRBG. ISSN: 0021-9304.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Apr 1996
Last Updated on STN: 29 Apr 1996

AB The development of artificial skin substitutes based on cultured cells and biomaterials such as collagen requires an understanding of cellular interactions with the substrate. In this study, human keratinocytes were cultured on the surface of **collagen sponges**, and confocal laser-scanning microscopy (CLSM) was used to assess both the **microstructure** of the sponge, and the cell morphology and distribution throughout the sponge. It was found that the pore size increased with increasing depth into the sponge. Both pore size and fiber thickness increased during incubation for up to 10 days at 37 degree C in culture medium in the absence of cells. This latter effect was not observed when the sponges were incubated in distilled water. Keratinocytes penetrated into the sponge even after only 3 days in culture. By 10 days in culture, the cells had penetrated to the maximum depth that could be examined (120 mu-m from the sponge surface). In the presence of cells, the inner **structure** of the **collagen sponge** had altered after 10 days in culture, with the collagen fibers becoming thicker, and pore geometry less regular. The mechanism responsible for this is unknown at present. Although the presence of the keratinocytes increases distortion of the sponge **structure**, factors from the medium itself also contribute to this effect. CLSM is a powerful tool for assessing cellular interactions with bioimplants, providing both qualitative and quantitative **information.** It offers many advantages over scanning electron microscopy (SEM) and histological techniques. CLSM minimizes the time-consuming, extensive **preparation** of samples required with the latter two methods, and allows noninvasive serial optical sectioning of intact samples.

CC Microscopy - Electron microscopy 01058
Cytology - Human 02508
Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Bioengineering 10511
Anatomy and Histology - Microscopic and ultramicroscopic anatomy 11108
Integumentary system - Physiology and biochemistry 18504

IT Major Concepts
Cell Biology; Integumentary System (Chemical Coordination and Homeostasis); **Methods and Techniques**; Morphology

IT Miscellaneous Descriptors
ARTIFICIAL SKIN SUBSTITUTE; CELL MORPHOLOGY; PROSTHETIC

ORGN Classifier
Hominidae 86215
Super Taxa

Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L110 ANSWER 31 OF 50 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 96205603 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8624392
TITLE: Effect of basic fibroblast growth factor on cartilage regeneration in chondrocyte-seeded collagen **sponge** scaffold.
AUTHOR: Fujisato T; Sajiki T; Liu Q; Ikada Y
CORPORATE SOURCE: Research Center for Biomedical Engineering, Kyoto University, Japan.
SOURCE: Biomaterials, **(1996 Jan)** 17 (2) 155-62.
Journal code: 8100316. ISSN: 0142-9612.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199606
ENTRY DATE: Entered STN: 19960708
Last Updated on STN: 19980206
Entered Medline: 19960627

AB A chondrocyte-collagen composite was **prepared** in an attempt to regenerate cartilage by its subcutaneous implantation in nude mouse. When the composite was impregnated with basic fibroblast growth factor (bFGF) prior to implantation, regeneration of the cartilage tissue was remarkably accelerated. Histological staining of the implanted composites with Safranin O-fast green revealed that the cells incorporated in the composites exhibited their phenotype and formed a new matured cartilage. A thin layer of fibrous capsule was observed surrounding the implanted composite and the inflammatory response of the host to the implant was mild. Specific proteoglycans were accumulated in the composite even 1 week after implantation. At 2 weeks after implantation, the chondrocytes regenerated the cartilage tissue, although still immature, but at 4 weeks almost all of the chondrocytes transferred to the mature stage. Conversely, such mature cartilage tissue was not noticed up to 4 weeks after implantation if the collagen scaffold was not impregnated with bFGF. Moreover, the mature area was limited to only a small fraction of the implanted composite, unless bFGF was incorporated in it.

CT Animals
*Cartilage, Articular: DE, drug effects
Cartilage, Articular: PH, physiology
Cell Count: DE, drug effects
Cell Division: DE, drug effects
Cell Transplantation
Cells, Cultured
Collagen: CH, chemistry
*Collagen: ME, metabolism
Dyes: CH, chemistry
*Fibroblast Growth Factor 2: PD, pharmacology
Injections, Subcutaneous
Mice
Mice, Nude
Phenazines: CH, chemistry
Phenotype
Prostheses and Implants: ST, standards
Proteoglycans: ME, metabolism

Rats
*Regeneration: DE, drug effects
Staining and Labeling
RN 103107-01-3 (Fibroblast Growth Factor 2); 477-73-6 (safranine T); 9007-34-5 (Collagen)
CN 0 (Dyes); 0 (Phenazines); 0 (Proteoglycans)

L110 ANSWER 32 OF 50 MEDLINE on STN
ACCESSION NUMBER: 96114672 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7492722
TITLE: Blends of synthetic and natural polymers as drug delivery systems for growth hormone.
AUTHOR: Cascone M G; Sim B; Downes S
CORPORATE SOURCE: Department of Chemical Engineering, University of Pisa, Italy.
SOURCE: Biomaterials, **(1995 May)** 16 (7) 569-74.
Journal code: 8100316. ISSN: 0142-9612.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601
ENTRY DATE: Entered STN: 19960217
Last Updated on STN: 19960217
Entered Medline: 19960111

AB In order to overcome the biological deficiencies of synthetic polymers and to enhance the mechanical characteristics of natural polymers, two synthetic polymers, poly(vinyl alcohol) (PVA) and poly(acrylic acid) (PAA) were blended, in different ratios, with two biological polymers, collagen (C) and hyaluronic acid (HA). These blends were used to **prepare** films, **sponges** and hydrogels which were loaded with growth hormone (GH) to investigate their potential use as drug delivery systems. The GH release was monitored in vitro using a specific enzyme-linked immunosorbent assay. The results show that GH can be released from HA/PAA **sponges** and from HA/PVA and C/PVA hydrogels. The initial GH concentration used for sample loading affected the total quantity of GH released but not the pattern of release. The rate and quantity of GH released was significantly dependent on the HA or C content of the polymers.

CT Check Tags: Human
*Acrylic Resins: CH, chemistry
Acrylic Resins: ME, metabolism
Animals
Biomechanics
Biopolymers
***Collagen: CH, chemistry**
Collagen: ME, metabolism
Delayed-Action Preparations
*Drug Delivery Systems: ST, standards
Gels: CH, chemistry
*Growth Hormone: AD, administration & dosage
Growth Hormone: ME, metabolism
*Hyaluronic Acid: CH, chemistry
Hyaluronic Acid: ME, metabolism
Microscopy, Electron, Scanning
*Polyvinyl Alcohol: CH, chemistry
Polyvinyl Alcohol: ME, metabolism
Recombinant Proteins: ME, metabolism
Recombinant Proteins: PK, pharmacokinetics
RN 9002-72-6 (Growth Hormone); 9002-89-5 (Polyvinyl Alcohol); 9003-01-4

(carbopol 940); 9004-61-9 (Hyaluronic Acid); 9007-34-5 (Collagen)
CN 0 (Acrylic Resins); 0 (Biopolymers); 0 (Delayed-Action **Preparations**); 0 (Gels); 0 (Recombinant Proteins)

L110 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:283230 HCAPLUS
DOCUMENT NUMBER: 122:54683
TITLE: Edible **sponges** of hydrocolloids.
INVENTOR(S): Nussinovitch, Amos
PATENT ASSIGNEE(S): Rapaport, Erich, Israel; Yissum Research Development Co.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
WO 9417137	A1	19940804	WO 1994-EP107		19940117	<--
W: AU, CA, US						
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE						
IL 104441	A1	20010128	IL 1993-104441		19930119	<--
AU 9458840	A1	19940815	AU 1994-58840		19940117	<--
US 6589328	B1	20030708	US 1997-877804		19970618	<--
US 2003224022	A1	20031204	US 2003-371205		20030224	<--
PRIORITY APPLN. INFO.:			IL 1993-104441	A	19930119	<--
			WO 1994-EP107	W	19940117	<--
			US 1995-491983	B2	19950718	<--
			US 1997-877804	A2	19970618	<--

AB The invention provides **sponges** (**foams**) produced from hydrocolloids by gel expansion. The **foams** have properties which can be varied, such as water absorption, biodegradability, pore size and structure. Edible products can be produced which may contain an edible plasticizer, a sugar or sugar substitute and possibly also a flavoring agent or taste enhancer. The novel **sponges** are produced by preparing a gel of a hydrocolloid, and either sealing it in a closed vessel with a liquid of similar composition, pressurizing the vessel and abruptly releasing the pressure, followed by freeze **drying**, or by incorporating in such a gel a suitable microorganism, such a a yeast and inducing fermentation in the presence of a nutrient medium, so that the CO2 formed results in the expansion and **foam** formation, which is processed to the final product. The hydrocolloid is agar, carrageenan, gelatin, alginate, starch, pectin, gellan, kunjak mannan, and xanthan gum plus locust bean.

IC ICM C08L005-00
ICS A23L001-05; C08J009-00
CC 17-4 (Food and Feed Chemistry)
ST hydrocolloid **sponge** food
IT Ceratonia siliqua
Food
Sponge
(edible hydrocolloid **sponges**)
IT **Gelatins, biological studies**
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(edible hydrocolloid **sponges**)
IT Colloids
(hydro-, edible hydrocolloid **sponges**)
IT 9000-07-1, Carrageenan 9000-69-5, Pectin 9005-25-8, Starch, biological

studies 9005-32-7, Alginic acid 9036-88-8, Mannan 11138-66-2, Xanthan gum
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
(edible hydrocolloid **sponges**)

L110 ANSWER 34 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
ACCESSION NUMBER: 1994:127948 BIOSIS
DOCUMENT NUMBER: PREV199497140948
TITLE: Confocal laser scanning microscopy (CLSM) for the study of **collagen sponge microstructure.**
AUTHOR(S): Hanthamrongwit, M.; Grant, M. H. [Reprint author]; Wilkinson, R.
CORPORATE SOURCE: Bioeng. Unit, Strathclyde Univ., 106 Rottenrow, Glasgow G1 0NW, UK
SOURCE: Journal of Biomedical Materials Research, (1994) Vol. 28, No. 2, pp. 213-216.
CODEN: JBMRBG. ISSN: 0021-9304.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Mar 1994
Last Updated on STN: 24 Mar 1994

AB This study uses confocal laser scanning microscopy (CLSM) to assess the **microstructure** of **collagen sponges** providing an accurate quantification of porosity under conditions similar to those experienced by cells growing on the sponges during culture. CLSM offers several advantages over scanning electron microscopy (SEM) and conventional optical microscopy for this kind of study, the most important of which is probably the absence of artifacts associated with the extensive **preparation** of samples required for the latter two methods. When the "pan-side" surface of **collagen sponges** was studied, it was found that the pore sizes increased with increasing depth into the sponge. **Collagen sponges** frozen in a -70 degree C freezer had a more open **structure** than ones frozen on the stage of a tissue dryer. These different pore sizes are thought to reflect different freezing rates in the samples.

CC Biochemistry studies - Proteins, peptides and amino acids 10064
Biophysics - Bioengineering 10511
Anatomy and Histology - Regeneration and transplantation 11107
Pathology - Therapy 12512
Integumentary system - General and methods 18501

IT Major Concepts
Integumentary System (Chemical Coordination and Homeostasis); **Methods and Techniques**; Physiology

IT Miscellaneous Descriptors
biotechnology industry; DERMAL COMPONENT; POROSITY; SKIN SUBSTITUTE

L110 ANSWER 35 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:519962 HCAPLUS
DOCUMENT NUMBER: 119:119962
TITLE: Manufacture of **collagen sponge**
INVENTOR(S): Takazawa, Hiroaki; Morita, Shinichiro
PATENT ASSIGNEE(S): Gunze Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05043734	A2	19930223	JP 1991-208388	19910821 <--
JP 2997823	B2	20000111		
PRIORITY APPLN. INFO.:			JP 1991-208388	19910821 <--

AB In the manufacture of **collagen sponge** by freeze **drying** the **collagen** solution, a liposol. organic solvent is added to the solution to facilitate a homogeneous **foaming.** Preparing a 3 mg/mL **collagen** solution of pH 3, adding 0.5 g CHCl3, homogenizing at 6000 rpm for 1 min, cooling the solution to -42°, freeze **drying** at 0.01 mmHg, heating at 105°, coating 100 μm silicone on the **sponge**, and crosslinking with 0.2% glutaraldehyde/AcOH solution gave a **sponge** useful as artificial skin.

IC ICM C08J009-28
ICS A61L027-00

ICI C08L089-00

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
Section cross-reference(s): 63

ST **collagen sponge** manuf org solvent; artificial skin
collagen sponge manuf; freeze **drying**
collagen sponge manuf

IT Freeze **drying**
(**collagen sponge** manufacture by, liposol. organic solvent for)

IT **Sponge**
(**collagen**, manufacture of, by freeze **drying**, organic solvent for)

IT Solvents
(in manufacture of **collagen sponge** by freeze **drying**)

IT **Collagens, miscellaneous**
RL: MSC (Miscellaneous)
(**sponge**, manufacture of, by freeze **drying**, organic solvent for)

IT Skin
(artificial, **collagen sponge**, manufacture of)

IT 67-66-3, Chloroform, uses
RL: USES (Uses)
(solvents, for manufacture of **collagen sponge** by freeze **drying**)

L110 ANSWER 36 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1993:450994 BIOSIS
DOCUMENT NUMBER: PREV199396095894
TITLE: Collagen synthesis by fibroblasts cultured within a **collagen sponge.**
AUTHOR(S): Berthod, Francois [Reprint author]; Hayek, Dany; Damour, Odile; Collombel, Christian
CORPORATE SOURCE: Laboratoire de Substituts Cutanes, Hopital Edouard Herriot, place d'Arsonval, F69437 Lyon, Cedex 03, France
SOURCE: Biomaterials, (1993) Vol. 14, No. 10, pp. 749-754.
CODEN: BIMADU. ISSN: 0142-9612.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Oct 1993
Last Updated on STN: 5 Oct 1993

AB We **prepared** a **collagen sponge** made of type I and III bovine collagen, glycosaminoglycans (GAG) and chitosan.

Fibroblasts grown within the **collagen sponge** express a sixfold increase of their collagen synthesis, compared with fibroblasts embedded in a collagen gel. Moreover, collagen synthesis is twice as high in the **collagen sponge** than in a monolayer culture. The **collagen sponge** culture system promotes a dynamic model for us to **perform** studies on the regulations of collagen synthesis. Increased collagen production within the **collagen sponge** leads fibroblasts to reconstitute their own extracellular matrix, which should be more physiological than a bovine collagen gel.

CC Cytology - Human 02508
Biochemistry studies - Proteins, peptides and amino acids 10064
Metabolism - Proteins, peptides and amino acids 13012
Bones, joints, fasciae, connective and adipose tissue - Physiology and biochemistry 18004
Tissue culture, apparatus, methods and media 32500

IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Metabolism; **Methods and Techniques**; Skeletal System (Movement and Support)

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Hominidae
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L110 ANSWER 37 OF 50 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 93132013 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8421002
TITLE: A new type of biomaterial for artificial skin: dehydrothermally cross-linked composites of fibrillar and denatured collagens.
AUTHOR: Koide M; Osaki K; Konishi J; Oyamada K; Katakura T; Takahashi A; Yoshizato K
CORPORATE SOURCE: R & D Center, Terumo Co., Kanagawa, Japan.
SOURCE: Journal of biomedical materials research, **(1993 Jan)** 27 (1) 79-87.
Journal code: 0112726. ISSN: 0021-9304.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199302
ENTRY DATE: Entered STN: 19930226
Last Updated on STN: 19980206
Entered Medline: 19930217

AB A new type of biomaterial for artificial skin was developed as a form of **sponge** by combining fibrillar collagen (F-collagen) with gelatin. The **sponge** was physically and metabolically stabilized by introducing dehydrothermal cross links. To get the final product, various

conditions in the **preparation** of **sponges** were evaluated by in vitro cellular responses and in vivo tissue reactions. Fibroblasts placed on a **sponge** of gelatin attached themselves to it, migrated well into the **sponge**, and remained inside it for at least 7 days. However, **sponges** of gelatin showed structural instability for hydrolytic degradation by the cells. Most fibroblasts appeared not to penetrate into the interior of a **sponge** of F-collagen but to remain on its surface when fibroblasts were placed on the **sponge**, suggesting poor attraction of F-collagen toward cells. Implantation experiments of **sponges** of F-collagen revealed an intense infiltration of neutrophils into the **sponge**, indicating F-collagen as an inducer of the inflammatory reaction. These aggravating characters of F-collagen **sponges** were greatly improved by blending gelatin with F-collagen. The new type of collagen-based biomaterials developed in the present study is expected to become a useful matrix substance for artificial skin.

CT Check Tags: Female
Animals
*Biological Dressings
*Collagen
Collagen: CH, chemistry
Collagen: UL, ultrastructure
Collagenases: ME, metabolism
Desiccation
Fibroblasts: EN, enzymology
*Gelatin
Heat
*Prostheses and Implants
Protein Conformation
Rats
Rats, Inbred WKY
***Surgical Sponges**

RN 9000-70-8 (Gelatin); 9007-34-5 (Collagen)
CN 0 (atelocollagen); EC 3.4.24.- (Collagenases)

L110 ANSWER 38 OF 50 MEDLINE on STN
ACCESSION NUMBER: 92281876 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1596476
TITLE: In vitro contraction rate of collagen in **sponge** -shape matrices.
AUTHOR: Cote M F; Sirois E; Doillon C J
CORPORATE SOURCE: Universite Laval and Hopital St-Francois d'Assise, Quebec, Canada.
SOURCE: Journal of biomaterials science. Polymer edition, **(1992)** 3 (4) 301-13.
Journal code: 9007393. ISSN: 0920-5063.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199207
ENTRY DATE: Entered STN: 19920717
Last Updated on STN: 19920717
Entered Medline: 19920708

AB Connective tissue substitute can be made of collagen **sponge** -shaped matrice which is reconstituted by freeze-drying a collagen dispersion. This procedure is then followed by a crosslinking treatment to decrease the in vivo biodegradation rate. In the present study, collagen dispersions made of collagen fibrils with a D-staggered pattern were submitted to the following treatments: (1) cyanamide or

glutaraldehyde was introduced during the dispersion step followed by the **manufacture** of **sponges**; (2) uncrosslinked **sponges** were exposed to formaldehyde vapor; or (3) uncrosslinked and crosslinked **sponges** were severely dehydrated. To characterize the in vitro contraction rate, the surface areas of **sponges** were sequentially recorded in relation to soaking time. Contraction did not significantly occur when **sponges** were chemically treated. However, collagen in **sponges** treated by either severe dehydration or by both cyanamide treatment and severe dehydration contracted. On the other hand, the different treatments of the collagen modified the distribution of the D-staggered pattern within fibrils. After glutaraldehyde treatment, the periodicity of collagen fibrils disappeared and large fibres were observed. These experiments show that the different treatments of the collagen can be useful for designing a contractile as well as a non-contractile biomaterial.

CT Check Tags: Support, Non-U.S. Gov't
Absorption
Animals
Biodegradation
Cattle
***Collagen: CH, chemistry**
Collagen: DE, drug effects
Collagen: UL, ultrastructure
Cyanamide: PD, pharmacology
Desiccation
Freeze Drying
Gelatin: CH, chemistry
Glutaral: PD, pharmacology
Microscopy, Electron
Microscopy, Electron, Scanning
Time Factors

RN 111-30-8 (Glutaral); 420-04-2 (Cyanamide); 9000-70-8 (Gelatin); 9007-34-5 (Collagen)

L110 ANSWER 39 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-258277 [34] WPIX
DOC. NO. NON-CPI: N1990-200116
DOC. NO. CPI: C1990-111924
TITLE: Haemostatic adhesive tape - having crosslinked **sponge** of **gelatin** and/or **collagen** adhered to adhesive tape.
DERWENT CLASS: A96 D22 G03 P32 P34
PATENT ASSIGNEE(S): (UBEI) UBE IND LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 02182259	A	19900716	(199034)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 02182259	A	JP 1989-518	19890106

PRIORITY APPLN. INFO: JP 1989-518 19890106
AN 1990-258277 [34] WPIX
AB JP 02182259 A UPAB: 19930928

The hemostatic adhesive tape has a crosslinked **sponge** of **gelatin** and/or collageh adhered to an adhesive tape. . The **sponge** is made by **foaming** a solution of **gelatin** and/or **collagen**, freezing/**drying** the **foamed** solution to obtain a **sponge**, and immersing in an organic solvent solution of a crosslinking agent to crosslink. The tape pref. has a water-absorbing polymer layer around the **sponge.** The **gelatin** concentration is pref. 1-50 weight%, more pref. 5-30 weight%. The **foaming** is done, e.g. by adding 0.1-30 weight% of surfactant and stirring at a rate of 3000-30000 rpm for 10-600 secs. Blowing of an inert gas, such as N2, is also available. The amount of a crosslinking agent added is pref. 0.0001-10.0 mol/g **gelatin.** Crosslinking agents include aldehydes, glycidyl ethers, isocyanates and so on.

USE/ADVANTAGE - The **sponge** has a higher deg. of crosslinking, preventing leaching out into the blood. The tape is suitable to stop bleeding from pierced parts or cut wounds on artificial dialysis, dripping, blood transfusion, and intravenous injection.

0/6

L110 ANSWER 40 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 1990-167503 [22] WPIX
DOC. NO. NON-CPI: N1990-130088
DOC. NO. CPI: C1990-073005
TITLE: New material for cleaning drain pipes - consists of **gelatin sponge** containing detergent.
DERWENT CLASS: A97 D25 E19 P43 Q42
PATENT ASSIGNEE(S): (UBEI) UBE IND LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 02107700	A	19900419	(199022)*		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 02107700	A	JP 1988-260677	19881018

PRIORITY APPLN. INFO: JP 1988-260677 19881018
AN 1990-167503 [22] WPIX
AB JP 02107700 A UPAB: 19930928
New material for drain pipes consists of **gelatin sponge** containing a detergent.

Pref. the **sponge** is formed, e.g., into a cylindrical shape. Ordinary **gelatin** is available. The **gelatin** is opt. cross-linked within such an extent that the water solubility will be retained. Available detergents include alkyl sulphates, alkyl sulphonates, alkyl aryl sulphonates, sulphsuccinic ester salts, higher amine halogen salts, halogenated alkyl pyridinium quat. ammonium salts, polyethylene glycol alkyl ethers polyethylene glycol fatty acid esters, sorbitan fatty acid esters, fatty acid monoglycerides, coconut oil fatty acid **collagen** peptides, and their mixts. The formation is done, e.g., by mixing an aqueous solution of **gelatin** with a detergent, preparing a **foamed** solution by stirring at a high speed and **foaming**, pouring into a cylindrical, spherica., conical, ellipsoidal, or cocoon-shaped form, and **drying** through freezing.

USE/ADVANTAGE - The material becomes a viscous solution by small amts.

of water, remaining on the inner surface of the pipes for long time and experting a sufficient cleaning effect. It well cleans the deep parts of the pipes securely, e.g. by inserting with a bar.
0/3

L110 ANSWER 41 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1989:441780 HCAPLUS
DOCUMENT NUMBER: 111:41780
TITLE: Surfactant-containing **collagen sponges**
INVENTOR(S): Hayade, Takeshi; Fujimoto, Toshio
PATENT ASSIGNEE(S): Nippi Collagen Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01004629	A2	19890109	JP 1987-159494	19870626 <--
JP 07088433	B4	19950927		
PRIORITY APPLN. INFO.:			JP 1987-159494	19870626 <--

AB **Collagen sponges** having uniform pores with diameter (D) 10-103 μm and growing in the direction of **sponge** thickness contain a 1-100% (based on **dry collagens**) surfactants. Swelling **collagens** from cattle leather with lactic acid, dispersing, adjusting to form a 2% solution with pH 3.0, mixing with 2% nonionic surfactant (HLB 10), **defoaming**, pouring in a tray of 50-μm thickness, and freeze-**drying** gave a uniform **sponge** with D 50-100 μm, vs. 50-1200 μm without the surfactant.
IC ICM C08J009-00
ICS A24D003-08; A61F013-18; A61K047-00; A61L015-01
CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
Section cross-reference(s): 11, 46, 63
ST **collagen sponge** uniformity surfactant; fine **collagen sponge** surfactant; absorbent **collagen sponge** substitute
IT Absorbents
(**collagen sponges** containing surfactants, as **sponge** substitutes with uniform fine pores)
IT Leather
(**collagens** from, containing surfactants, as fine-pore **sponge** substitutes for cigarette filters and sanitary napkins)
IT **Sponge** substitutes
(**collagens**, containing surfactants, with uniform fine pores, for cigarette filters or sanitary napkins)
IT **Collagens, uses and miscellaneous**
RL: USES (Uses)
(**sponge** substitutes, surfactant-containing, with uniform fine pores for cigarette filters or sanitary napkins)
IT Surfactants
(nonionic, **collagen sponges** containing, **sponge** substitutes with uniform fine pores, for cigarette filters and sanitary napkins)

L110 ANSWER 42 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1990:152120 BIOSIS
DOCUMENT NUMBER: PREV199089079538; BA89:79538
TITLE: INTERSTITIAL COLLAGENASE MMP-1 GELATINASE MMP-2 AND STROMELYSIN MMP-3 RELEASED BY HUMAN FIBROBLASTS CULTURED ON ACELLULAR SARCOID GRANULOMAS SARCOID MATRIX COMPLEX SMC.
AUTHOR(S): EMONARD H [Reprint author]; TAKIYA C; DREZE S; CORDIER J F; GRIMAUD J A
CORPORATE SOURCE: LAB PATHOL CELLULAIRE, CNRS, URA 602, INST PASTEUR, AVE TONY GARNIER, 69 365 LYON CEDEX 7, FR
SOURCE: Matrix, (1989) Vol. 9, No. 5, pp. 382-388.
CODEN: MTRXEH. ISSN: 0934-8832.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 27 Mar 1990
Last Updated on STN: 28 Mar 1990

AB We studied collagenase, gelatinase and stromelysin syntheses by human fibroblasts cultured on three models of tridimensional matrix: native **collagen sponge**, native **collagen** complexed with glycosaminoglycans sponge, and acellular sarcoid matrix complex **prepared** from human sarcoid granulomas. Collagenase and stromelysin biosyntheses were differently stimulated according to culture conditions. Fibroblasts secreted a same amount of collagenase or stromelysin when cultured on collagen and **collagen** -glycosaminoglycans **sponges**, while **collagenase** and stromelysin secretions were widely amplified when cultured on sarcoid matrix complex. In contrast, gelatinase production was equally induced by the three culture conditions. In the different culture conditions on tridimensional matrix, the three matrix metalloproteinases were synthesized in a latent **form.** Thus, the sarcoid matrix complex stimulated the release of collagenase and stromelysin by fibroblast, but did not stimulate the release of gelatinase. This suggests that collagenase and stromelysin syntheses are co-regulated while gelatinase production is controlled by a distinct mechanism.

CC Comparative biochemistry 10010
Biochemistry methods - Proteins, peptides and amino acids 10054
Biochemistry studies - Proteins, peptides and amino acids 10064
Enzymes - General and comparative studies: coenzymes 10802
Enzymes - Physiological studies 10808
Pathology - Inflammation and inflammatory disease 12508
Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Tissue culture, apparatus, methods and media 32500
In vitro cellular and subcellular studies 32600

IT Major Concepts
Biochemistry and Molecular Biophysics; Enzymology (Biochemistry and Molecular Biophysics); **Methods and Techniques**; Pathology; Skeletal System (Movement and Support)

IT Miscellaneous Descriptors
SARCOIDOSIS TRIDIMENSIONAL MATRIX METALLOPROTEINASES

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 9001-12-1 (COLLAGENASE)
9040-48-6 (GELATINASE)
79955-99-0 (STROMELYSIN)
81669-70-7D (METALLOPROTEINASES)

L110 ANSWER 43 OF 50 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 1986:174535 BIOSIS
DOCUMENT NUMBER: PREV198681084951; BA81:84951
TITLE: CALCIFICATION OF SUBCUTANEOUSLY IMPLANTED TYPE I **COLLAGEN SPONGES** EFFECTS OF **FORMALDEHYDE** AND GLUTARALDEHYDE PRETREATMENTS.
AUTHOR(S): LEVY R J [Reprint author]; SCHOEN F J; SHERMAN F S; NICHOLS J; HAWLEY M A; LUND S A
CORPORATE SOURCE: DEP CARDIOLOGY, CHILDREN'S HOSP, 300 LONGWOOD AVE, BOSTON, MA 02115, USA
SOURCE: American Journal of Pathology, (1986) Vol. 122, No. 1, pp. 71-82.
CODEN: AJPAA4. ISSN: 0002-9440.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 26 Apr 1986
Last Updated on STN: 26 Apr 1986

AB Although collagen-containing implants are widely used in various surgical applications, there has been relatively little attention paid to the possibility that this type of biomaterial may undergo pathologic calcification which could compromise its function. The present study reports for the first time the calcification of a series of implants of purified **collagen sponges prepared** with graded degrees of aldehyde-induced cross-linkages (assessed by shrinkage-temperature, wetting time, and collagenase digestibility). Type I **collagen sponges** were pretreated with either glutaraldehyde (0.1% to 2.0% aqueous solution, for 5-180 minutes) or **formaldehyde** (as vapors for 15 minutes to 15 hours), and implanted subcutaneously for 21 days in weanling rats. Although specimens not pretreated with either aldehyde reagent and the **formaldehyde** sponges pretreated for 15 minutes were resorbed without evidence of calcification, all other aldehyde-pretreated implants mineralized. The degree of calcification did not correlate with extent of cross-linking. **Formaldehyde**-pretreated implants calcified more extensively (Ca^{2+} = 87.8 ± 2.8 μg/mg, mean ± standard error of the mean; n = 58) than did glutaraldehyde-pretreated implants (Ca^{2+} = 40.9 ± 1.4 μg/mg; n = 52). It is concluded that both glutaraldehyde- and **formaldehyde**-pretreated Type I **collagen sponges** calcify after subdermal implantation in young rats. Although aldehyde pretreatment of Type I **collagen sponge** implants is a prerequisite for their eventual mineralization, the threshold level of aldehyde-induced cross-linking required to potentiate their maximal pathologic calcification is low.

CC Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Minerals 10069
Biophysics - Bioengineering 10511
Pathology - General 12502
Pathology - Diagnostic 12504
Metabolism - Minerals 13010
Metabolism - Proteins, peptides and amino acids 13012
Integumentary system - General and methods 18501

IT Major Concepts
Metabolism; **Methods and Techniques**; Pathology

IT Miscellaneous Descriptors
RAT MINERALIZATION BIOMATERIAL

ORGN Classifier
Muridae 86375

Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN 50-00-0 (**FORMALDEHYDE**)
111-30-8 (GLUTARALDEHYDE)

L110 ANSWER 44 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1982:168764 HCAPLUS
DOCUMENT NUMBER: 96:168764
TITLE: Lyophilized hydrocolloid **foam** for medical use
INVENTOR(S): Pawelchak, John M.; Wang, Yu-chang J.; Lavia, Anthony L.
PATENT ASSIGNEE(S): E. R. Squibb and Sons, Inc., USA
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 44624	A1	19820127	EP 1981-302822	19810623 <--
EP 44624	B1	19841031		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AT 10064	E	19841115	AT 1981-302822	19810623 <--
AU 8172562	A1	19820318	AU 1981-72562	19810703 <--
AU 557569	B2	19861224		
JP 57047355	A2	19820318	JP 1981-108055	19810709 <--
JP 01040855	B4	19890831		
PRIORITY APPLN. INFO.:			US 1980-167257	19800709 <--
			EP 1981-302822	19810623 <--

AB A lyophilized **foam sponge** product having hemostatic, bioabsorbable and adhesive properties is obtained from a mixture of hydrocolloid gelatin (20-80% by weight), pectin [9000-69-5] (10-50%), and Na CM-cellulose [9004-32-4] (10-50%) and has a d. of 0.01-0.1 g/mL. This product can be obtained in the form of a sheet which can be sliced or cut to a desired size or milled into granular form or cast into discrete shapes such as cones, tampons, suppositories, etc. A **dry** blend consisting of gelatin 30, Na CM-cellulose 15 and pectin 15 g was mixed with 1L distilled H2O with agitation and whipping continued for 10-15 min until the volume of the aerating **foam** was approx. 3L. The **foam** was transfersed to pans or molds and frozen at -5 to -20° for 6 h. It was then lyophilized at 50 to 100 μ for 36 h at 20°. The d. of the **foam** product is 0.02 g/mL.
IC A61L015-00; A61L015-04
CC 63-6 (Pharmaceuticals)
ST **foam** hydrocolloid cellulose gelatin pectin; **sponge** **foam** hydrocolloid medical
IT **Gelatins, biological studies**
RL: BIOL (Biological study)
(hydrocolloid **foam sponges** containing CM-cellulose, pectin and, for medical uses)
IT Surgical dressings and goods
(**sponges**, hydrocolloid **foam** containing CM-cellulose, gelatins and pectin for)
IT 9000-69-5

RL: BIOL (Biological study)
(hydrocolloid **foam sponge** containing CM-cellulose, gelatins and, for medical uses)
IT 9004-32-4
RL: BIOL (Biological study)
(hydrocolloid **foam sponge** containing pectin, gelatins and, for medical uses)

L110 ANSWER 45 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 1981-79450D [43] WPIX
TITLE: Haemostatic, adhesive, bio-absorbable hydrocolloid **foam sponge** - containing **gelatin**, sodium carboxymethyl cellulose, and pectin, possesses wet-tack, useful in skin grafting.
DERWENT CLASS: A11 A96 D22 P32 P34
INVENTOR(S): LAVIA, A L; PAWELCHAK, J M; WANG, Y C J
PATENT ASSIGNEE(S): (SQUI) SQUIBB & SONS INC E R
COUNTRY COUNT: 14
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4292972	A	19811006	(198143)*		7
EP 44624	A	19820127	(198205)	EN	
R: AT BE CH DE FR GB IT LI LU NL SE					
JP 57047355	A	19820318	(198217)		
CA 1146469	A	19830517	(198322)		
EP 44624	B	19841031	(198444)	EN	
R: AT BE CH DE FR GB IT LI LU NL SE					
DE 3166938	G	19841206	(198450)		
JP 01040855	B	19890831	(198939)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 44624	A	EP 1981-302822	19810623
JP 57047355	A	JP 1981-108055	19810709

PRIORITY APPLN. INFO: US 1980-167257 19800709
AN 1981-79450D [43] WPIX
AB US 4292972 A UPAB: 19930915
Medically useful lyophilised **sponge** prod. of density 0.01-0.1 g/cc consists of (by weight): 10-50% pectin (I); 10-50% Na carboxymethyl cellulose (II); and 20-80% **gelatin** (III). Pref. **sponges** contain (by weight) 15-35% (I), 15-35% (II), and 30-70% (III).

A colloidal dispersion containing pref. 3-9% by weight of the (I)-(III) blend and 10-100% (by weight of solids) of a surface tension modifier in water is aerated or **foamed** (to 10-85% pref. ca 60% by volume entrapped gas), then freeze-**dried** at below 20 deg. C/ 50-150 mu. The prod. is then kept at relative humidity less than 50%.

Opt. **sponge** prods. can be cross-linked with HCHO, or glutaraldehyde, etc. (added at 0.1-10% by weight of (I)-(III)) to aerated colloidal dispersion etc.) to reduce its water-solubility. In addition, plasticisers (propylene glycol, etc.) can be included at up to 30% by weight of (I)-(III).

The **sponge** is capable of absorbing many times its weight of blood or body exudates, possesses wet-tack, and is bioabsorbable. The prod. is thus useful as a haemostatic agent or as an adhesive in e.g. skin

grafting procedures.

ABEQ EP 44624 B UPAB: 19930915

Lyophilised spongy **foam** of density 0.01-0.1 g/cm3 comprises mixt. of hydrocolloids, 20-8 wt.% **gelatin**, 10-50 wt.% pectin and 10-50 wt.% Na CMC.

Prepn. of the **foam** is effected by **dry** blending **gelatin**, pectin and Na CMC, adding mix to H2O to form colloidal dispersion with solids content 1-20 wt.%, aerating or **foaming** to obtain vol. increase of 10-600%, then freezing and freeze **drying**.

USE/ADVANTAGE - Pharmaceutically active materials, e.g. thrombin, can be added to aerated or **foamed** colloidal dispersion if prod. is to be used as haemostatic agent or surgical **sponge.** Propylene glycol or glycerine can be added to colloidal dispersion at upto 30% by wt. to enhance prod. flexibility and strength.

L110 ANSWER 46 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:501307 HCAPLUS
DOCUMENT NUMBER: 75:101307
TITLE: Hemostatic fillers for filling the holes after extracting teeth
INVENTOR(S): Sako, Eiji; Takanabe, Nukushi
PATENT ASSIGNEE(S): Green Cross Corp.
SOURCE: Jpn. Tokkyo Koho, 2 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45041111	B4	19701223	JP	19660822 <--

AB The manufacture of the fillers with gelatin component disappearing after hemostatic action of thrombin is described. In an example, 150 g gelatin and 5 g Na myristyl sulfate (as the **foaming** agent) are dissolved in 1 l. distilled H2O, kept 4 hr at room temperature, intermittently (30 min) sterilized for 3 days at 100°, cooled to 40°, vigorously stirred to 5-10 times volume, adding 2.5 ml of 40% aqueous glyoxal (as the gelatin-denaturing agent), frozen at -30°, kept 12 hr in air at -6° and 5% relative humidity, and cooled again to -30°. After 10 days repetition of freezing and remelting to sublime H2O and 2 hr **drying** at 100° in air, a **dry** gelatin **sponge** obtained is kept 5 min at 4° in a conventional dipping solution containing 400 units/ml thrombin and the H2O sublimation is repeated in the same manner as described above to give the title filler.

IC C08H; C09H; A61JKC
CC 63 (Pharmaceuticals)
IT Dental materials
Gelatin, biological studies
RL: BIOL (Biological study)
(hemostatic fillers, for tooth sockets)

L110 ANSWER 47 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:406522 HCAPLUS
DOCUMENT NUMBER: 71:6522
TITLE: Preparation and testing of gelatin **sponges** with added furazolidone or 4-chlorobenzyl isothiocyanate
AUTHOR(S): Weuffen, Wolfgang; Fuchs, B.

CORPORATE SOURCE: Inst. Med. Mikrobiol. Epidemiol., Ernst-Moritz-Arndt-Univ. Greifswald, Greifswald, Fed. Rep. Ger.
SOURCE: Deutsche Stomatologie (1951-1973) (**1968**), 18(12), 895-904
CODEN: DESTA6; ISSN: 0012-0790
DOCUMENT TYPE: Journal
LANGUAGE: German

AB A critical review of com. resorbable tampon materials for wound treatment and to stop bleeding is given concerning prepns. based on gelatin, fibrin, hydroxycellulose, **collagen**, starch, alginate, and casein. Micro-biostatic addns. used to suppress the growth of bacteria in the gelatin prepns. are also reviewed. The gelatin preparation (com. gelatin **sponge** Gelaspon) made by **foaming** and freeze-**drying** a gelatin solution was prepared with the addns. of 0.0625-1.0% furazolidone, or 0.025-0.4% 4-chlorobenzyl isothiocyanate. The antiseptics were added to the gelatin solution before the preparation of the **sponge.** Phys. properties did not change in comparison with the pure gelatin **sponge**, whereas bacteriostatic and bactericidal effects considerably increased, especially in furazolidone addns., which seem suitable for clinical use.

CC 63 (Pharmaceuticals)
ST gelatin **sponges** antibacterial; **sponges** antibacterial gelatin; antibacterial gelatin **sponges**; furazolidone gelatin **sponges**; benzyl isothiocyanates **sponges**
IT **Gelatin, biological studies**
RL: BIOL (Biological study)
(**sponges**, bactericide incorporation in)
IT 67-45-8 3694-45-9
RL: BIOL (Biological study)
(gelatin **sponge** treatment with)

L110 ANSWER 48 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1968:13403 HCAPLUS
DOCUMENT NUMBER: 68:13403
TITLE: Reaction products of protein with cyanamide under acidic conditions
INVENTOR(S): Young, Harland Harry; Luce, Stewart B.
PATENT ASSIGNEE(S): Swift and Co.
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3300470		19670124	US	19631004 <--

AB To convert water-soluble proteins such as gelatin, bone glue, egg albumin, lactalbumin, histones, protamines, into useful water-insol. derivs., reaction with 50% aqueous cyanamide at pH 4-5, is used. Thus, 100 g. gelatin was held in 400 g. H2O 15 min. and dissolved by heating, the mixture cooled to 60°, mixed with 12 g. aqueous cyanamide at pH 4-5, poured into a shallow pan, and cooled to solidify, and the solid cut into strips and dried at 80-100°. Instead of **drying**, the reaction mixture may be aerated and whipped to form a **foam**-type product. Particularly useful as flocculating agents, the products are suitable for photographic layers, surgical **sponges**, and for microencapsulation. Products of controlled solubility may be prepared by variations in time and temperature of heating. Similarly was prepared a reaction

product of bone glue and cyanamide.
NCL 260117000
CC 34 (Synthesis of Amino Acids, Peptides, and Proteins)
IT **Gelatin, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(with cyanamide)

L110 ANSWER 49 OF 50 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1951:57570 HCAPLUS
DOCUMENT NUMBER: 45:57570
ORIGINAL REFERENCE NO.: 45:9811e-f
TITLE: Undenatured gelatin, hemostatic **sponge** containing thrombin
INVENTOR(S): Studer, Andre
PATENT ASSIGNEE(S): Hoffmann-La Roche, Inc.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2558395		19510626	US	<--

AB Preformed hemostatic tampons and bandages are made by **drying**, at low temperature and under reduced pressure, a **foam** of an aqueous solution containing undenatured, water-soluble gelatin and thrombin. Antiseptic agents, such as thymol, a mixture of the Me and Pr esters of p-hydroxybenzoic acid, 5-sulfanilamido-3,4-dimethylisoxazole, and substances for accelerating cicatrization, such as pantothenol, may be added to the gelatin-thrombin solution
CC 17 (Pharmaceuticals, Cosmetics, and Perfumes)
IT Wounds
(hemostatic **sponge** containing agents for healing of)
IT **Gelatin**
(hemostatic **sponge** from undenatured)
IT **Sponges**
(hemostatic, containing thrombin from undenatured gelatin)
IT Benzoic acid, p-hydroxy-, methyl and Pr esters
(hemostatic **sponge** containing)
IT 9002-04-4, Thrombin
(hemostatic **sponge** containing)
IT 89-83-8, Thymol
(hemostatic **sponge** containing thrombin and)
IT 127-69-5, Sulfanilamide, N1-3,4-dimethyl-5-isoxazolyl- 16485-10-2, Butyramide, 2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethyl-
(**sponges** (hemostatic) containing)

L110 ANSWER 50 OF 50 WPIX COPYRIGHT 2004 THE THOMSON CORP on STN
ACCESSION NUMBER: 1966-31249F [00] WPIX
TITLE: **Gelatin foams** used as styptic plugs.
DERWENT CLASS: A00 B00
PATENT ASSIGNEE(S): (RUSS) MIKHANOV SA ET AL (SYNTHETIC RESINS
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 192397	A		(196800)*		

PRIORITY APPLN. INFO: SU 1964-880830 19640208
AN 1966-31249F [00] WPIX
AB SU 192397 A UPAB: 19930831
Foam tampons. **Sponges** prepared from water-soluble polymers (e.g.
gelatin) are useful in medicine as styptic plugs. The proposed materials have improved haemostatic and bactericidal properties.
40 g **gelatine** are dissolved in 500 ml water at 40-50 deg.C with stirring. 500 ml Furacin 0.01% solution, 2.5 ml 37% formalin, 2.5 ml 5% aqueous sulphonal and 1 g calcium chloride are added. After 20 min. the mixture is stirred up into a **foam.** When it increases five-fold in volume it is poured into a mould and **dried** for 48-60 hr. at 20 (+-)2 deg.C. The **dry foam** is sterilized at
140 deg.C for 30 min. and divided into sections.

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FILE 'HOME' ENTERED AT 16:25:59 ON 25 OCT 2004

=>
Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspat01plr

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HOME' AT 16:28:48 ON 25 OCT 2004
FILE 'HOME' ENTERED AT 16:28:48 ON 25 OCT 2004

=> b hcaplus
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FILE COVERS 1907 - 25 Oct 2004 VOL 141 ISS 18
FILE LAST UPDATED: 24 Oct 2004 (20041024/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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E2            1      SCHAUFLEBERGER DANIEL E/AU
E3            0 --> SCHAUFLER A/AU
E4            2      SCHAUFLER ALFRED/AU
E5            6      SCHAUFLER C/AU
E6            1      SCHAUFLER CHRISTIAN/AU
E7            1      SCHAUFLER D/AU
E8            5      SCHAUFLER ERWIN/AU
E9            2      SCHAUFLER G/AU
E10           6      SCHAUFLER GERHARD/AU
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E12           1      SCHAUFLER J/AU

=> e4
L111          2 "SCHAUFLER ALFRED"/AU

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FILE COVERS 1907 - 25 Oct 2004  VOL 141 ISS 18
FILE LAST UPDATED: 24 Oct 2004  (20041024/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que l111
L111          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "SCHAUFLER ALFRED"/AU


=> d all l111

L111 ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2004 ACS on STN
AN   2002:696041  HCAPLUS
DN   137:222121
ED   Entered STN:  13 Sep 2002
TI   A method of preparing a collagen sponge and a device for extracting a part
     of a collagen foam
IN   Schaufler, Alfred
PA   Nycomed Pharma AS, Norway
SO   PCT Int. Appl., 27 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
IC   ICM  C08J009-00
CC   63-7 (Pharmaceuticals)
     Section cross-reference(s): 38
FAN.CNT 3
     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
     --------------      ----   --------    -------------------      --------
PI   WO 2002070594        A2    20020912    WO 2002-IB1452           20020125
     WO 2002070594        A3    20030103
     WO 2002070594        C1    20040311
         W:  AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
             FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
             MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
             SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW,
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AM, AZ, BY, KG
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2002153632 A1 20021024 US 2002-54854 20020125
US 2002164322 A1 20021107 US 2002-54889 20020125
US 2002187194 A1 20021212 US 2002-54853 20020125
US 6733774 B2 20040511
EE 200300349 A 20031015 EE 2003-349 20020125
EP 1368419 A2 20031210 EP 2002-718481 20020125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2002006705 A 20040225 BR 2002-6705 20020125
NO 2003003295 A 20030925 NO 2003-3295 20030722
PRAI DK 2001-135 A 20010125
DK 2001-235 A 20010213
US 2001-263699P P 20010125
US 2001-270914P P 20010226
WO 2002-IB1452 W 20020125

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002070594	ICM	C08J009-00
US 2002187194	ECLA	A61L015/32A; A61L015/42E; A61L024/00H8; A61L024/10A; A61L024/10F

AB A method of preparing a collagen sponge comprises mixing air into a collagen gel, so as to obtain a collagen foam which is dried. From the dried product thereby obtained, collagen sponge is obtained by isolating parts of sponge with a chamber diameter of more than 0.75 mm and <4 mm, or parts with an average chamber diagonal dimension of 3 mm. The collagen sponge may be used as a material for sealing wounds, possibly with a coating comprising a fibrin glue, such as a combination of fibrinogen, thrombin and aprotinin. A device for extracting a part of a collagen foam and for degenerating another part of the collagen foam to a collagen gel is disclosed. An elongated collagen sponge having a through-going hole or bore and a flexible wall may be used for re-establishing walls in a mammalian gastrointestinal funnel or trachea system.

ST collagen sponge device extn; foam collagen sponge device extn

IT Medical goods
(adhesives; preparation of collagen sponge and device for extraction of collagen foam)

IT Fibrins
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(glue; preparation of collagen sponge and device for extraction of collagen foam)

IT Adhesives
(medical; preparation of collagen sponge and device for extraction of collagen foam)

IT Solvents
(organic; preparation of collagen sponge and device for extraction of collagen foam)

IT Coating materials
Digestive tract
Elasticity

Tendon
Trachea (anatomical)
Viscosity
Wound healing
(preparation of collagen sponge and device for extraction of collagen foam)

IT Collagens, biological studies
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of collagen sponge and device for extraction of collagen foam)

IT Alcohols, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(preparation of collagen sponge and device for extraction of collagen foam)

IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of collagen sponge and device for extraction of collagen foam)

IT Medical goods
(sponges; preparation of collagen sponge and device for extraction of collagen foam)

IT 50-21-5, Lactic acid, processes 64-17-5, Ethanol, processes
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(preparation of collagen sponge and device for extraction of collagen foam)

IT 9002-04-4, Thrombin 9087-70-1, Aprotinin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(preparation of collagen sponge and device for extraction of collagen foam)

=> d all l111 2

L111 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:574967 HCAPLUS
DN 137:129824
ED Entered STN: 02 Aug 2002
TI Collagen sponges coated with fibrinogen, thrombin and alcohol comprising suspension and method for preparation
IN **Schaufler, Alfred**
PA Nycomed Pharma AS, Norway
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61L027-00
CC 63-3 (Pharmaceuticals)
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058750	A2	20020801	WO 2002-IB1454	20020125
	WO 2002058750	A3	20021031		
	WO 2002058750	C1	20040311		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002153632	A1	20021024	US 2002-54854		20020125
US 2002164322	A1	20021107	US 2002-54889		20020125
US 2002187194	A1	20021212	US 2002-54853		20020125
US 6733774	B2	20040511			
EE 200300341	A	20031015	EE 2003-341		20020125
EP 1359947	A2	20031112	EP 2002-734886		20020125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004520124	T2	20040708	JP 2002-559084		20020125
NO 2003003297	A	20030925	NO 2003-3297		20030722
PRAI DK 2001-135	A	20010125			
DK 2001-235	A	20010213			
US 2001-263699P	P	20010125			
US 2001-270914P	P	20010226			
WO 2002-IB1454	W	20020125			

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002058750	ICM	A61L027-00
US 2002187194	ECLA	A61L015/32A; A61L015/42E; A61L024/00H8; A61L024/10A; A61L024/10F

AB A suspension of fibrinogen, thrombin, alc. and optionally aprotinin is obtained by mixing fibrinogen in alc. with thrombin in alc. The suspension contains fibrinogen and thrombin particles with a Folk Ward mean diameter of 25-100 μm. The thrombin may be human, bovine or recombinant. The fibrinogen may be human or recombinant. A method for coating a carrier, such as a collagen sponge, with the suspension, and a method for drying the coating is disclosed. The coated collagen carrier may be used as a ready-to-use absorbable composition for tissue gluing, tissue sealing and hemostasis wherein the carrier is coated with solidly fixed components of fibrin glue, i.e. fibrinogen and thrombin.

ST collagen sponge fibrinogen thrombin coating tissue adhesive hemostasis

IT Adhesives
(biol. tissue; collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Blood coagulation
Density
Drying
Elasticity
Foams
Human
Particle size
Pore size
Spraying
Suspensions
Temperature
Viscosity
Wound healing
(collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Albumins, biological studies
Collagens, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Fibrinogens
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human, bovine, recombinant; collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Medical goods
(sponges; collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT Medical goods
(tissue adhesives; collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT 64-17-5, Ethanol, biological studies 9087-70-1, Aprotinin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

IT 9002-04-4, Thrombin
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(human, bovine, recombinant; collagen sponges coated with fibrinogen, thrombin and alc. comprising suspension and method for preparation)

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FILE 'HOME' ENTERED AT 16:30:04 ON 25 OCT 2004

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